10/628,043

```
FILE 'HOME' ENTERED AT 13:42:24 ON 12 APR 2005

=> file biosis medline caplus wpids uspatfull
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'BIOSIS' ENTERED AT 13:42:44 ON 12 APR 2005
Copyright (c) 2005 The Thomson Corporation

FILE 'MEDLINE' ENTERED AT 13:42:44 ON 12 APR 2005

FILE 'CAPLUS' ENTERED AT 13:42:44 ON 12 APR 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIDS' ENTERED AT 13:42:44 ON 12 APR 2005
COPYRIGHT (C) 2005 THE THOMSON CORPORATION

FILE 'USPATFULL' ENTERED AT 13:42:44 ON 12 APR 2005
CA INDEXING COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

*** YOU HAVE NEW MAIL ***

=> s detect? (4a) presence (3a) absence (3a) RNA
L1          129 DETECT? (4A) PRESENCE (3A) ABSENCE (3A) RNA

=> s l1 and modifi? (3a) oligo?
L2           62 L1 AND MODIFI? (3A) OLIGO?

=> dup rem l2
PROCESSING COMPLETED FOR L2
L3           59 DUP REM L2 (3 DUPLICATES REMOVED)

=> s l3 and 1996/py
L4            1 L3 AND 1996/PY

=> d l4 bib abs

L4   ANSWER 1 OF 1  USPATFULL on STN
AN     96:39007  USPATFULL
TI     Compositions for inhibiting RNA activity
IN     Cook, Phillip D., Carlsbad, CA, United States
       Bruice, Thomas, Carlsbad, CA, United States
       Guinosso, Charles J., Carlsbad, CA, United States
       Kawasaki, Andrew M., Oceanside, CA, United States
PA     Isis Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S.
       corporation)
PI     US 5514786              19960507                          <--
AI     US 1992-942961          19920910 (7)
RLI    Continuation-in-part of Ser. No. US 1992-846556, filed on 5 Mar 1992,
       now patented, Pat. No. US 5359051 which is a continuation-in-part of
       Ser. No. US 1990-463358, filed on 11 Jan 1990, now abandoned And a
       continuation-in-part of Ser. No. US 1990-566977, filed on 13 Aug 1990,
       now abandoned
DT     Utility
FS     Granted
EXNAM  Primary Examiner: Jones, W. Gary; Assistant Examiner: Schreiber, David
LREP   Woodcock Washburn Kurtz Mackiewicz & Norris
CLMN   Number of Claims: 21
ECL    Exemplary Claim: 1
DRWN   8 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 1999
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB     Compositions and methods for modulating the activity of RNA are
       disclosed. In accordance with preferred embodiments, antisense
```

compositions are prepared comprising targeting and reactive portions. The reactive portions preferably comprise one or two imidazole functionalities conjugated to the targeting oligonucleotide via linkers with or without intervening intercalating moieties. Therapeutics, diagnostics and research methods also are disclosed, as are synthetic nucleosides and nucleoside fragments that can be elaborated into oligonucleotides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s l3 not l4
L5 58 L3 NOT L4

=> d l5 bib abs 1-58

L5 ANSWER 1 OF 58 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
AN 2003-831271 [77] WPIDS
CR 1991-237978 [32]; 1992-080013 [10]; 1992-096815 [12]; 1992-096911 [12]; 1992-415799 [50]; 1992-415800 [50]; 1993-018137 [02]; 1993-152175 [18]; 1993-152487 [18]; 1993-227263 [28]; 1993-303152 [38]; 1993-320768 [40]; 1994-026130 [03]; 1994-048786 [06]; 1994-135570 [16]; 1994-332803 [41]; 1994-333091 [41]; 1994-333094 [41]; 1994-333100 [41]; 1994-333101 [41]; 1995-066911 [09]; 1995-115256 [15]; 1995-115397 [15]; 1995-206893 [27]; 1995-215086 [28]; 1995-246328 [32]; 1995-292881 [38]; 1995-302445 [39]; 1995-402802 [51]; 1996-200879 [20]; 1997-011289 [01]; 1997-020468 [02]; 1997-042296 [04]; 1997-042838 [04]; 1997-363002 [33]; 1997-424765 [39]; 1998-008042 [01]; 1998-260961 [23]; 1998-296838 [26]; 1999-024070 [02]; 1999-080503 [07]; 1999-080505 [07]; 1999-120005 [10]; 1999-120932 [10]; 1999-166721 [14]; 1999-214073 [18]; 1999-228583 [19]; 1999-394857 [33]; 1999-403817 [34]; 1999-404471 [34]; 1999-517980 [43]; 1999-539598 [45]; 1999-561076 [47]; 2000-072074 [06]; 2000-106010 [09]; 2000-160501 [14]; 2000-237346 [20]; 2000-410235 [35]; 2000-586484 [55]; 2000-610851 [58]; 2000-672833 [65]; 2001-025027 [03]; 2001-138117 [14]; 2001-388462 [41]; 2001-407099 [43]; 2001-528597 [58]; 2001-624246 [72]; 2002-054477 [07]; 2002-215022 [27]; 2002-519372 [55]; 2002-565044 [60]; 2002-657606 [70]; 2003-438873 [41]; 2003-521529 [49]; 2003-531084 [50]; 2003-566474 [53]; 2004-079586 [08]; 2004-106519 [11]; 2004-267636 [25]; 2004-466815 [44]; 2004-561278 [54]; 2004-632911 [61]; 2005-180828 [19]
DNC C2003-234168
TI **Modified oligonucleotides** useful as therapeutics, diagnostics and research agents comprises several covalently bound nucleosides joined by internucleoside linkages.
DC B04 D16
IN COOK, P D; KAWASAKI, A M
PA (ISIS-N) ISIS PHARM INC
CYC 1
PI US 2003187240 A1 20031002 (200377)* 48
ADT US 2003187240 A1 CIP of US 1990-463358 19900111, CIP of US 1990-566977 19900813, CIP of US 1992-835932 19920305, Cont of US 1995-468037 19950606, Cont of US 1999-389283 19990902, US 2003-352586 20030128
FDT US 2003187240 A1 CIP of US 5670633, Cont of US 5859221, Cont of US 6531584
PRAI US 1995-468037 19950606; US 1990-463358 19900111;
US 1990-566977 19900813; US 1992-835932 19920305;
US 1999-389283 19990902; US 2003-352586 20030128
AN 2003-831271 [77] WPIDS
CR 1991-237978 [32]; 1992-080013 [10]; 1992-096815 [12]; 1992-096911 [12]; 1992-415799 [50]; 1992-415800 [50]; 1993-018137 [02]; 1993-152175 [18]; 1993-152487 [18]; 1993-227263 [28]; 1993-303152 [38]; 1993-320768 [40]; 1994-026130 [03]; 1994-048786 [06]; 1994-135570 [16]; 1994-332803 [41]; 1994-333091 [41]; 1994-333094 [41]; 1994-333100 [41]; 1994-333101 [41]; 1995-066911 [09]; 1995-115256 [15]; 1995-115397 [15]; 1995-206893 [27]; 1995-215086 [28]; 1995-246328 [32]; 1995-292881 [38]; 1995-302445 [39]; 1995-402802 [51]; 1996-200879 [20]; 1997-011289 [01]; 1997-020468 [02]; 1997-042296 [04]; 1997-042838 [04]; 1997-363002 [33]; 1997-424765 [39]; 1998-008042 [01]; 1998-260961 [23]; 1998-296838 [26]; 1999-024070 [02]; 1999-080503 [07]; 1999-080505 [07]; 1999-120005 [10]; 1999-120932 [10]; 1999-166721 [14]; 1999-214073 [18]; 1999-228583 [19]; 1999-394857 [33];

1999-403817 [34]; 1999-404471 [34]; 1999-517980 [43]; 1999-539598 [45];
1999-561076 [47]; 2000-072074 [06]; 2000-106010 [09]; 2000-160501 [14];
2000-237346 [20]; 2000-410235 [35]; 2000-586484 [55]; 2000-610851 [58];
2000-672833 [65]; 2001-025027 [03]; 2001-138117 [14]; 2001-388462 [41];
2001-407099 [43]; 2001-528597 [58]; 2001-624246 [72]; 2002-054477 [07];
2002-215022 [27]; 2002-519372 [55]; 2002-565044 [60]; 2002-657606 [70];
2003-438873 [41]; 2003-521529 [49]; 2003-531084 [50]; 2003-566474 [53];
2004-079586 [08]; 2004-106519 [11]; 2004-267636 [25]; 2004-466815 [44];
2004-561278 [54]; 2004-632911 [61]; 2005-180828 [19]

AB US2003187240 A UPAB: 20050406

NOVELTY - A **modified oligonucleotide** comprises several covalently bound nucleosides including a ribose or deoxyribose sugar portion and a base portion. The nucleosides are joined together by internucleoside linkages such that the base portion of the nucleosides form a mixed base sequence. At least one of the nucleosides includes a modified ribofuranosyl moiety bearing a 2'-fluoro substituent.

DETAILED DESCRIPTION - A compound comprises several covalently bound nucleosides including a ribose or deoxyribose sugar portion and a base portion. The nucleosides are joined together by internucleoside linkages such that the base portion of the nucleosides form a mixed base sequence. At least one of the nucleosides includes a modified ribofuranosyl moiety bearing a 2'-fluoro substituent (provided that at least two of the nucleosides are 2-fluoro modified ribofuranosyl nucleosides when the internucleoside linkages are phosphodiester linkages).

ACTIVITY - Virucide; Anti-HIV; Antiarteriosclerotic; Cytostatic.

MECHANISM OF ACTION - DNA or RNA modulator; Protein production modulator; Protein production inhibitor; Viral nucleic acid hybridization inducer.

USE - As therapeutics, diagnostics and research agents e.g. for the treatment of various viruses (e.g. AIDS), for modulating the production of proteins by an organism, treating an organism having a disease involving an undesired production of a protein (e.g. atherosclerosis, cancer), **detecting** the **presence** or **absence** of abnormal **RNA** molecules, or abnormal or inappropriate expression of normal RNA molecules in organisms or cells, and for the selective binding of RNA for use as research reagents and diagnostic agents.

ADVANTAGE - The compounds have improved stability to enzymatic degradation with various intracellular and extracellular nucleases, and improved ability to bind to a specific DNA or RNA with fidelity compared to wild-type DNA-DNA and RNA-DNA duplexes and phosphorus-**modified oligonucleotide** duplexes containing methylphosphonates, phosphoramidates and phosphate triesters. The **modified oligonucleotides** are designed to specifically hybridize to the preselected portion of target DNA or RNA.

Dwg.0/9

L5 ANSWER 2 OF 58 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

AN 2003-566474 [53] WPIDS

CR 1991-237978 [32]; 1992-080013 [10]; 1992-096815 [12]; 1992-096911 [12];
1992-415799 [50]; 1992-415800 [50]; 1993-018137 [02]; 1993-152175 [18];
1993-152487 [18]; 1993-227263 [28]; 1993-303152 [38]; 1993-320768 [40];
1994-026130 [03]; 1994-048786 [06]; 1994-135570 [16]; 1994-332803 [41];
1994-333091 [41]; 1994-333094 [41]; 1994-333100 [41]; 1994-333101 [41];
1995-066911 [09]; 1995-115256 [15]; 1995-115397 [15]; 1995-206893 [27];
1995-215086 [28]; 1995-246328 [32]; 1995-292881 [38]; 1995-302445 [39];
1995-402802 [51]; 1996-200879 [20]; 1997-011289 [01]; 1997-020468 [02];
1997-042296 [04]; 1997-042838 [04]; 1997-363002 [33]; 1997-424765 [39];
1998-008042 [01]; 1998-260961 [23]; 1998-296838 [26]; 1999-024070 [02];
1999-080503 [07]; 1999-080505 [07]; 1999-120005 [10]; 1999-120932 [10];
1999-166721 [14]; 1999-214073 [18]; 1999-228583 [19]; 1999-394857 [33];
1999-403817 [34]; 1999-404471 [34]; 1999-517980 [43]; 1999-539598 [45];
1999-561076 [47]; 2000-072074 [06]; 2000-106010 [09]; 2000-160501 [14];
2000-237346 [20]; 2000-410235 [35]; 2000-586484 [55]; 2000-610851 [58];
2000-672833 [65]; 2001-025027 [03]; 2001-138117 [14]; 2001-388462 [41];
2001-407099 [43]; 2001-528597 [58]; 2001-624246 [72]; 2002-054477 [07];
2002-215022 [27]; 2002-519372 [55]; 2002-565044 [60]; 2002-657606 [70];
2003-438873 [41]; 2003-521529 [49]; 2003-531084 [50]; 2003-831271 [77];
2004-079586 [08]; 2004-106519 [11]; 2004-267636 [25]; 2004-466815 [44];

2004-561278 [54]; 2004-632911 [61]; 2005-180828 [19]
DNC C2003-152780 .
TI Nuclease resistant mixed sequence oligonucleotides useful as therapeutics, diagnostics, and research agents comprise at least one modified 2'-deoxyfuranosyl group.
DC B04 D16
IN COOK, P D; KAWASAKI, A M
PA (ISIS-N) ISIS PHARM INC
CYC 1
PI US 6531584 B1 20030311 (200353)* 48
ADT US 6531584 B1 CIP of US 1990-463358 19900111, CIP of US 1990-566977 19900813, CIP of US 1992-835932 19920305, CIP of US 1992-854634 19920701, Cont of US 1995-468037 19950606, Div ex US 1998-35357 19980305, US 1999-389283 19990902
FDT US 6531584 B1 CIP of US 5670633, Cont of US 5859221, Div ex US 6005087
PRAI US 1995-468037 19950606; US 1990-463358 19900111;
US 1990-566977 19900813; US 1992-835932 19920305;
US 1992-854634 19920701; US 1998-35357 19980305;
US 1999-389283 19990902
AN 2003-566474 [53] WPIDS
CR 1991-237978 [32]; 1992-080013 [10]; 1992-096815 [12]; 1992-096911 [12]; 1992-415799 [50]; 1992-415800 [50]; 1993-018137 [02]; 1993-152175 [18]; 1993-152487 [18]; 1993-227263 [28]; 1993-303152 [38]; 1993-320768 [40]; 1994-026130 [03]; 1994-048786 [06]; 1994-135570 [16]; 1994-332803 [41]; 1994-333091 [41]; 1994-333094 [41]; 1994-333100 [41]; 1994-333101 [41]; 1995-066911 [09]; 1995-115256 [15]; 1995-115397 [15]; 1995-206893 [27]; 1995-215086 [28]; 1995-246328 [32]; 1995-292881 [38]; 1995-302445 [39]; 1995-402802 [51]; 1996-200879 [20]; 1997-011289 [01]; 1997-020468 [02]; 1997-042296 [04]; 1997-042838 [04]; 1997-363002 [33]; 1997-424765 [39]; 1998-008042 [01]; 1998-260961 [23]; 1998-296838 [26]; 1999-024070 [02]; 1999-080503 [07]; 1999-080505 [07]; 1999-120005 [10]; 1999-120932 [10]; 1999-166721 [14]; 1999-214073 [18]; 1999-228583 [19]; 1999-394857 [33]; 1999-403817 [34]; 1999-404471 [34]; 1999-517980 [43]; 1999-539598 [45]; 1999-561076 [47]; 2000-072074 [06]; 2000-106010 [09]; 2000-160501 [14]; 2000-237346 [20]; 2000-410235 [35]; 2000-586484 [55]; 2000-610851 [58]; 2000-672833 [65]; 2001-025027 [03]; 2001-138117 [14]; 2001-388462 [41]; 2001-407099 [43]; 2001-528597 [58]; 2001-624246 [72]; 2002-054477 [07]; 2002-215022 [27]; 2002-519372 [55]; 2002-565044 [60]; 2002-657606 [70]; 2003-438873 [41]; 2003-521529 [49]; 2003-531084 [50]; 2003-831271 [77]; 2004-079586 [08]; 2004-106519 [11]; 2004-267636 [25]; 2004-466815 [44]; 2004-561278 [54]; 2004-632911 [61]; 2005-180828 [19]
AB US 6531584 B UPAB: 20050406

NOVELTY - Nuclease resistant mixed sequence oligonucleotides comprising at least one modified 2'-deoxyfuranosyl group, are new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(1) a nuclease resistant mixed sequence oligonucleotide comprising at least one 2'-deoxyfuranosyl group modified by substitution with allyl;

(2) a mixed sequence **oligonucleotide** having a first **modification** comprising at least one 2'-deoxy-2'-NH2 group and a second modification which confers nuclease resistance to the oligonucleotide;

(3) a mixed sequence **oligonucleotide** having a first **modification** comprising at least one modified 2'-deoxy-2'-amino group where the group is a secondary amine, and a second modification conferring nuclease resistance to the oligonucleotide;

(4) a nuclease resistant mixed sequence oligonucleotide comprising at least one 2'-deoxyfuranosyl group modified by substitution with azido; and

(5) a nuclease resistant oligonucleotide (analog) including more than one 2'-modified 2'-deoxyfuranosyl group where the modification comprises substitution by hydroxyl, halo, azido, or amino, and where one of the 2'-modified 2'-deoxyfuranosyl group is different from another of the 2-modified 2'-deoxyfuranosyl groups.

ACTIVITY - Antiviral.

MECHANISM OF ACTION - The oligonucleotides act by specifically hybridizing with a target nucleic acid to modulate its activity, and are especially useful as antisense oligonucleotides inhibiting the production of a specific protein by binding to its encoding mRNA. The new oligonucleotides are nuclease resistant and persist for some time in a

treated cell.

Chimeric oligonucleotides of sequence TCCCGCCTGTGACATGCATT were designed using the Genbank c-raf sequence X03484 and tested for their ability to inhibit c-raf mRNA expression in T24 human bladder carcinoma cells. The oligonucleotides had a central gap of 6, 8, or 10 deoxynucleotides flanked by two regions of 2'-O-methyl modified nucleotides. The backbones were all phosphorothioate. Cells were seeded on 100 mm plates and grown to 70% confluency in McCoy's 5A medium with L-glutamine and 10% fetal calf serum before treatment with oligonucleotide. Cells were washed with 10 ml pre-warmed phosphate-buffered saline and 5 ml of reduced serum medium containing 2.5 micro 1 N-(1-(2,3-dioleyloxy)propyl)-N,N,N-trimethylammonium chloride (DOTMA). The oligonucleotide was then added with lipofectin. The medium was replaced with fresh McCoy's medium after 4 hours treatment. Cells were harvested 24-72 hours after oligonucleotide treatment and Northern blot analysis was used to assay the effect of the treatment on c-raf mRNA expression. One of the oligonucleotides with an 8-deoxynucleotide gap inhibited c-raf mRNA expression by more than 90%.

USE - The **modified oligonucleotides** are disclosed as being useful for modulating the production of a protein by an organism, and especially for treating a disease in an organism which is characterized by the undesired production of a protein. The oligonucleotides may be used to treat diseases caused by viruses or other agents. The oligonucleotides may also be used for diagnostic methods for **detecting** the **presence** or **absence** of abnormal **RNA** molecules, or for detecting the inappropriate expression of normal RNA molecules in an organism or cell. Oligonucleotides of the invention that selectively bind RNA may also be useful as research reagents.

ADVANTAGE - The new oligonucleotides are nuclease resistant and hybridize to RNA or DNA targets with high strength and specificity.
Dwg.0/9

L5 ANSWER 3 OF 58 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
AN 1999-166721 [14] WPIDS
CR 1991-237978 [32]; 1992-080013 [10]; 1992-096815 [12]; 1992-096911 [12]; 1992-415799 [50]; 1992-415800 [50]; 1993-018137 [02]; 1993-152175 [18]; 1993-152487 [18]; 1993-227263 [28]; 1993-303152 [38]; 1993-320768 [40]; 1994-026130 [03]; 1994-048786 [06]; 1994-135570 [16]; 1994-332803 [41]; 1994-333091 [41]; 1994-333094 [41]; 1994-333100 [41]; 1994-333101 [41]; 1995-066911 [09]; 1995-115256 [15]; 1995-115397 [15]; 1995-206893 [27]; 1995-215086 [28]; 1995-246328 [32]; 1995-292881 [38]; 1995-302445 [39]; 1995-402802 [51]; 1996-200879 [20]; 1997-011289 [01]; 1997-020468 [02]; 1997-042296 [04]; 1997-042838 [04]; 1997-363002 [33]; 1997-424765 [39]; 1998-008042 [01]; 1998-260961 [23]; 1998-296838 [26]; 1999-024070 [02]; 1999-080503 [07]; 1999-080505 [07]; 1999-120005 [10]; 1999-120932 [10]; 1999-214073 [18]; 1999-228583 [19]; 1999-394857 [33]; 1999-403817 [34]; 1999-404471 [34]; 1999-517980 [43]; 1999-539598 [45]; 1999-561076 [47]; 2000-072074 [06]; 2000-106010 [09]; 2000-160501 [14]; 2000-237346 [20]; 2000-410235 [35]; 2000-586484 [55]; 2000-610851 [58]; 2000-672833 [65]; 2001-025027 [03]; 2001-138117 [14]; 2001-388462 [41]; 2001-407099 [43]; 2001-528597 [58]; 2001-624246 [72]; 2002-054477 [07]; 2002-215022 [27]; 2002-517809 [55]; 2002-519372 [55]; 2002-565044 [60]; 2002-657606 [70]; 2003-438873 [41]; 2003-521529 [49]; 2003-531084 [50]; 2003-566474 [53]; 2003-831271 [77]; 2004-079586 [08]; 2004-106519 [11]; 2004-267636 [25]; 2004-466815 [44]; 2004-561278 [54]; 2004-632911 [61]; 2005-180828 [19]
DNC C1999-048644
TI New 2'-O-**modified oligo**-nucleotide(s) - comprising nucleotide(s) comprising a 2'-aminoalkoxy or 2'-imidazolylalkoxy substituent, used for hybridisation to RNA or DNA.
DC B04 D16
IN COOK, P D; KAWASAKI, A M
PA (ISIS-N) ISIS PHARM INC
CYC 1
PI US 5872232 A 19990216 (199914)* 48
ADT US 5872232 A CIP of US 1990-463358 19900111, CIP of US 1990-566977 19900813, CIP of WO 1991-US5720 19910812, CIP of US 1992-835932 19920305, CIP of US 1992-854634 19920701, US 1995-471973 19950606

FDT US 5872232 A CIP of US 5670633
PRAI US 1995-471973 . 19950606; US 1990-463358 19900111;
US 1990-566977 19900813; WO 1991-US5720 19910812;
US 1992-835932 19920305; US 1992-854634 19920701
AN 1999-166721 [14] WPIDS
CR 1991-237978 [32]; 1992-080013 [10]; 1992-096815 [12]; 1992-096911 [12];
1992-415799 [50]; 1992-415800 [50]; 1993-018137 [02]; 1993-152175 [18];
1993-152487 [18]; 1993-227263 [28]; 1993-303152 [38]; 1993-320768 [40];
1994-026130 [03]; 1994-048786 [06]; 1994-135570 [16]; 1994-332803 [41];
1994-333091 [41]; 1994-333094 [41]; 1994-333100 [41]; 1994-333101 [41];
1995-066911 [09]; 1995-115256 [15]; 1995-115397 [15]; 1995-206893 [27];
1995-215086 [28]; 1995-246328 [32]; 1995-292881 [38]; 1995-302445 [39];
1995-402802 [51]; 1996-200879 [20]; 1997-011289 [01]; 1997-020468 [02];
1997-042296 [04]; 1997-042838 [04]; 1997-363002 [33]; 1997-424765 [39];
1998-008042 [01]; 1998-260961 [23]; 1998-296838 [26]; 1999-024070 [02];
1999-080503 [07]; 1999-080505 [07]; 1999-120005 [10]; 1999-120932 [10];
1999-214073 [18]; 1999-228583 [19]; 1999-394857 [33]; 1999-403817 [34];
1999-404471 [34]; 1999-517980 [43]; 1999-539598 [45]; 1999-561076 [47];
2000-072074 [06]; 2000-106010 [09]; 2000-160501 [14]; 2000-237346 [20];
2000-410235 [35]; 2000-586484 [55]; 2000-610851 [58]; 2000-672833 [65];
2001-025027 [03]; 2001-138117 [14]; 2001-388462 [41]; 2001-407099 [43];
2001-528597 [58]; 2001-624246 [72]; 2002-054477 [07]; 2002-215022 [27];
2002-517809 [55]; 2002-519372 [55]; 2002-565044 [60]; 2002-657606 [70];
2003-438873 [41]; 2003-521529 [49]; 2003-531084 [50]; 2003-566474 [53];
2003-831271 [77]; 2004-079586 [08]; 2004-106519 [11]; 2004-267636 [25];
2004-466815 [44]; 2004-561278 [54]; 2004-632911 [61]; 2005-180828 [19]
AB US 5872232 A UPAB: 20050406
NOVELTY - 2'-O-**modified oligonucleotides** (ONs)
comprising nucleosides comprising a 2'-aminoalkoxy or 2'-imidazolylalkoxy substituent are new. DETAILED DESCRIPTION - A nuclease resistant compound that hybridises with RNA or DNA is claimed, the compound comprising covalently-bound nucleosides that individually include a ribose or deoxyribose sugar portion and base portion where the nucleosides are joined together by internucleoside linkages such that the base portion of the nucleosides form a mixed base sequence that is complementary to a RNA base sequence or to a DNA base sequence; at least one of the nucleosides including: (a) a base selected from adenine, thymine, uracil and guanine; and (b) a modified ribofuranosyl moiety bearing a 2'-aminoalkoxy or 2'-imidazolylalkoxy substituent , where the alkoxy moiety of the substituent has 1-20C.

USE - The nuclease resistant compounds can be used for modulating the activity of DNA or RNA. They can be used for treating organisms having a disease characterised by the undesired production of a protein. Diverse organisms such as bacteria, yeast, protozoa, algae, plant and higher animal forms including warm-blooded animals can be treated in this manner. The compounds can be used for treating e.g. AIDS, atherosclerosis or tumours. They can also be used in diagnostic methods for **detecting** the **presence** or **absence** of abnormal **RNA** molecules, or abnormal or inappropriate expression of normal RNA molecules in organisms or cells.

ADVANTAGE - The compounds are resistant to nuclease degradation and exhibit hybridisation properties of higher quality relative to wild-type DNA-DNA and RNA-DNA duplexes and phosphorus-modified ON duplexes containing methylphosphonates, phosphoramidates and phosphate triesters. Dwg.0/9

L5 ANSWER 4 OF 58 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN
AN 1992-096911 [12] WPIDS
CR 1991-237978 [32]; 1992-080013 [10]; 1992-096815 [12]; 1992-415799 [50];
1992-415800 [50]; 1993-018137 [02]; 1993-152175 [18]; 1993-152487 [18];
1993-227263 [28]; 1993-303152 [38]; 1993-320768 [40]; 1994-026130 [03];
1994-048786 [06]; 1994-135570 [16]; 1994-332803 [41]; 1994-333091 [41];
1994-333094 [41]; 1994-333100 [41]; 1994-333101 [41]; 1995-066911 [09];
1995-115256 [15]; 1995-115397 [15]; 1995-206893 [27]; 1995-215086 [28];
1995-246328 [32]; 1995-292881 [38]; 1995-302445 [39]; 1995-402802 [51];
1996-200879 [20]; 1997-011289 [01]; 1997-020468 [02]; 1997-042296 [04];
1997-042838 [04]; 1997-363002 [33]; 1997-424765 [39]; 1998-008042 [01];
1998-260961 [23]; 1998-296838 [26]; 1999-024070 [02]; 1999-080503 [07];

1999-080505 [07]; 1999-120005 [10]; 1999-120932 [10]; 1999-166721 [14];
1999-214073 [18]; 1999-228583 [19]; 1999-394857 [33]; 1999-403817 [34];
1999-404471 [34]; 1999-517980 [43]; 1999-539598 [45]; 1999-561076 [47];
2000-072074 [06]; 2000-106010 [09]; 2000-160501 [14]; 2000-237346 [20];
2000-410235 [35]; 2000-586484 [55]; 2000-610851 [58]; 2000-672833 [65];
2001-025027 [03]; 2001-138117 [14]; 2001-388462 [41]; 2001-407099 [43];
2001-528597 [58]; 2001-624246 [72]; 2002-054477 [07]; 2002-215022 [27];
2002-517809 [55]; 2002-519372 [55]; 2002-565044 [60]; 2002-657606 [70];
2003-438873 [41]; 2003-521529 [49]; 2003-531084 [50]; 2003-566474 [53];
2003-831271 [77]; 2004-079586 [08]; 2004-106519 [11]; 2004-267636 [25];
2004-466815 [44]; 2004-561278 [54]; 2004-632911 [61]; 2005-180828 [19]

DNC C1992-045037

TI Nuclease resistant 2'-deoxy-furanosyl **modified oligo**-nucleotide(s) - are specifically hybridised with DNA and RNA sequences to modulate gene expression, for treating e.g. HIV, herpes and papillomavirus.

DC B02 B03 B04 D16

IN COOK, P D; KAWASAKI, A; KAWASAKI, A M; MANOHARAN, M; MOHAN, V

PA (ISIS-N) ISIS PHARM INC; (COOK-I) COOK P D; (KAWA-I) KAWASAKI A M; (MANO-I) MANOHARAN M; (MOHA-I) MOHAN V

CYC 23

PI WO 9203568 A 19920305 (199212)* 73
RW: AT CH DE DK ES GB GR LU NL SE
W: AU BR CA FI HU JP KR NO US
AU 9184403 A 19920317 (199226)
EP 549615 A1 19930707 (199327) EN 73
R: AT BE CH DE DK ES FR GB GR IT LI LU NL SE
BR 9106826 A 19940125 (199408)
JP 06502758 W 19940331 (199418) 22
AU 661662 B 19950803 (199539)
US 5670633 A 19970923 (199744) 20
EP 549615 A4 19970827 (199814)
US 2003096979 A1 20030522 (200336)

ADT WO 9203568 A WO 1991-US5720 19910812; AU 9184403 A AU 1991-84403 19910812, WO 1991-US5720 19910812; EP 549615 A1 EP 1991-915355 19910812, WO 1991-US5720 19910812; BR 9106826 A BR 1991-6826 19910812, WO 1991-US5720 19910812; JP 06502758 W JP 1991-514521 19910812, WO 1991-US5720 19910812; AU 661662 B AU 1991-84403 19910812; US 5670633 A CIP of US 1990-463358 19900111, CIP of US 1990-566977 19900813, WO 1991-US5720 19910812, US 1992-835932 19920305; EP 549615 A4 EP 1991-915355 19910812; US 2003096979 A1 Div ex US 1992-835932 19920305, CIP of US 1997-936166 19970923, CIP of US 1999-303586 19990503, US 2001-970971 20011004

FDT AU 9184403 A Based on WO 9203568; EP 549615 A1 Based on WO 9203568; BR 9106826 A Based on WO 9203568; JP 06502758 W Based on WO 9203568; AU 661662 B Previous Publ. AU 9184403, Based on WO 9203568; US 5670633 A Based on WO 9203568; US 2003096979 A1 Div ex US 5670633, CIP of US 6307040, CIP of US 6369209

PRAI US 1990-566977 19900813; US 1990-463358 19900111;
US 1992-835932 19920305

AN 1992-096911 [12] WPIDS

CR 1991-237978 [32]; 1992-080013 [10]; 1992-096815 [12]; 1992-415799 [50];
1992-415800 [50]; 1993-018137 [02]; 1993-152175 [18]; 1993-152487 [18];
1993-227263 [28]; 1993-303152 [38]; 1993-320768 [40]; 1994-026130 [03];
1994-048786 [06]; 1994-135570 [16]; 1994-332803 [41]; 1994-333091 [41];
1994-333094 [41]; 1994-333100 [41]; 1994-333101 [41]; 1995-066911 [09];
1995-115256 [15]; 1995-115397 [15]; 1995-206893 [27]; 1995-215086 [28];
1995-246328 [32]; 1995-292881 [38]; 1995-302445 [39]; 1995-402802 [51];
1996-200879 [20]; 1997-011289 [01]; 1997-020468 [02]; 1997-042296 [04];
1997-042838 [04]; 1997-363002 [33]; 1997-424765 [39]; 1998-008042 [01];
1998-260961 [23]; 1998-296838 [26]; 1999-024070 [02]; 1999-080503 [07];
1999-080505 [07]; 1999-120005 [10]; 1999-120932 [10]; 1999-166721 [14];
1999-214073 [18]; 1999-228583 [19]; 1999-394857 [33]; 1999-403817 [34];
1999-404471 [34]; 1999-517980 [43]; 1999-539598 [45]; 1999-561076 [47];
2000-072074 [06]; 2000-106010 [09]; 2000-160501 [14]; 2000-237346 [20];
2000-410235 [35]; 2000-586484 [55]; 2000-610851 [58]; 2000-672833 [65];
2001-025027 [03]; 2001-138117 [14]; 2001-388462 [41]; 2001-407099 [43];
2001-528597 [58]; 2001-624246 [72]; 2002-054477 [07]; 2002-215022 [27];
2002-517809 [55]; 2002-519372 [55]; 2002-565044 [60]; 2002-657606 [70];

2003-438873 [41]; 2003-521529 [49]; 2003-531084 [50]; 2003-566474 [53]; 2003-831271 [77]; 2004-079586 [08]; 2004-106519 [11]; 2004-267636 [25]; 2004-466815 [44]; 2004-561278 [54]; 2004-632911 [61]; 2005-180828 [19]

AB WO 9203568 A UPAB: 20050406

A nuclease resistant oligonucleotide or its analogue, for modulating the activity of a selected sequence of RNA or DNA, has, (a) sequence of nucleotide bases specifically hybridisable with the selected sequence, and (b) at lest one modified 2'-deoxyfuranosyl moiety.

Modification (b) comprises substitution by H, OH, halo, azid, amino (opt. substd.), CN, halomethyl, cyanoto, alkoxy, alkylthio, haloalkoxy, alkylsulphinyl, alkylsulphonyl, nitrate, nitrile, ammonium, allyloxy or alkenoxy. Pref. modification is by substn. with H, OH, halo, N3, amino, allyloxy, OMe, or alkyl, and is at the 3' end of the olignoculeotide. In addition the phosphodiester linking gps. may be modified to phosphorothioate, methylphosphonate, or phosphate alkylate, or replaced with carbon or ether linkages, or a 5'-methylene gp. and/or carbocyclic sugar removed. The oligonucleotide or its analogue, have about 5-50 nucleotide bases.

USE - The oligonucleotides are nuclease resistant, and are useful as antisense oligonucleotides useful as therapeutics, diagnostics and research reagents. They modulate the activity of DNA and RNA, in turn modulating the production of proteins especially those which either directly or through their enzyme functions cause disease in animals including humans. The antisense-binding may be for direct inhibition of protein production for therapy, or to **detect** the **presence** or **absence** of abnormal **RNA**, or inappropriate expression of normal RNA, in organisms or cells. the selected sequence of RNA or DNA may combine a portion of the genome of HIV, herpes virus, or papilloma virus, for use in treatment and diagnosis.

Dwg.0/0

ABEQ EP 549615 A UPAB: 19931116

A nuclease resistant oligonucleotide or its analogue, for modulating the activity of a selected sequence of RNA or DNA, has (a) sequence of nucleotide bases specifically hybridisable with the selected sequence, and (b) at least one modified 2'-deoxyfuranosyl moiety.

Modification (b) comprsies substitution by H, OH, halo, azide, amino (opt. substd.), CN, halomethyl, cyanato, alkoxy, alkylthio, haloalkoxy, alkylsulphinyl, alkylsulphonyl, nitrate, nitrile, ammomium, allyloxy or alkenoxy. Pref. modification is by substn. with H, OH, halo, N3, amino, allyloxy, OMe or alkyl, and is at the 3' end of the oligo nucleotide.

In addn. the phosphodiester linking gps. may be modified to phosphorothioate, methylphosphonate, or phosphate alkylate, or replaced with carbon or ether linkages, or a 5'-methylene gp. and/or carbocyclic sugar removed. The oligo nucleotides or its analogue, have about 5-50 nucleotide bases.

USE - The oligo nucleotides are nuclease resistant, and are useful as antisense oligonucleotides useful as therapeutics, diagnostics and reserach reagents. They modulate the activity of DNA and RNA, in turn modulating the prodn. of proteins esp. those which either directly or through their enzyme functions cause disease in animals including humans.

ABEQ US 5670633 A UPAB: 19971105

An oligonucleotide that hybridizes with RNA or DNA, having 5 to 50 covalently-bound nucleosides that individually include a ribose or deoxyribose sugar portion and a base portion. The sugar portions of the nucleosides are joined together by 3'-5' internucleoside linkages such that the base portions of the nucleosides form a mixed base sequence that is complementary to an RNA base sequence or to a DNA base sequence, at least two of the nucleosides include a modified deoxyfuranosyl moiety bearing a 2'-fluoro substituent and a duplex formed between the oligonucleotide and its complement exhibits greater thermal stability than a duplex formed between the complement and an oligonucleotide that does not include 2'-fluoro substituents.

Dwg.0/0

L5 ANSWER 5 OF 58 USPATFULL on STN

AN 2005:87309 USPATFULL

TI Carbamate-derivatized nucleosides and oligonucleosides

IN Cook, Phillip Dan, Vista, CA, UNITED STATES

Manoharan, Muthiah, Carlsbad, CA, UNITED STATES
PA ISIS Pharmaceuticals, Inc. (U.S. corporation)
PI US 2005074771 A1 20050407
AI US 2003-628043 A1 20030725 (10)
RLI Division of Ser. No. US 2001-934138, filed on 21 Aug 2001, GRANTED, Pat. No. US 6803198 Division of Ser. No. US 2000-688394, filed on 16 Oct 2000, GRANTED, Pat. No. US 6322987 Division of Ser. No. US 1999-372856, filed on 12 Aug 1999, GRANTED, Pat. No. US 6166188 Division of Ser. No. US 1996-713742, filed on 13 Sep 1996, GRANTED, Pat. No. US 6111085
DT Utility
FS APPLICATION
LREP WOODCOCK WASHBURN LLP, ONE LIBERTY PLACE - 46TH FLOOR, PHILADELPHIA, PA, 19103
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1261
AB Nucleosides and oligonucleosides functionalized to include carbamate functionality, and derivatives thereof. In certain embodiments, the compounds of the invention further include steroids, reporter molecules, reporter enzymes, lipophilic molecules, peptides or proteins attached to the nucleosides through the carbamate group.

L5 ANSWER 6 OF 58 USPATFULL on STN
AN 2005:75168 USPATFULL
TI Continuous and non-continuous flow bioreactor
IN Dettloff, Roger, Emerald Hills, CA, UNITED STATES
Kirby, Celeste, San Jose, CA, UNITED STATES
Gentalen, Erik, Redwood City, CA, UNITED STATES
Rosoff, Monica, Half Moon Bay, CA, UNITED STATES
PA Caliper Life Sciences, Inc., Mountain View, CA (U.S. corporation)
PI US 2005064465 A1 20050324
AI US 2004-884170 A1 20040702 (10)
PRAI US 2003-484729P 20030702 (60)
DT Utility
FS APPLICATION
LREP CALIPER LIFE SCIENCES, INC., 605 FAIRCHILD DRIVE, MOUNTAIN VIEW, CA, 94043-2234
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN 18 Drawing Page(s)
LN.CNT 2807
AB Methods and systems for performing continuous amplification of RNA and other nucleic acids are provided. Expression profiling using the continuous flow RNA amplification systems are also provided.

L5 ANSWER 7 OF 58 USPATFULL on STN
AN 2004:247178 USPATFULL
TI Oligoribonucleotides and ribonucleases for cleaving RNA
IN Crooke, Stanley T., Carlsbad, CA, UNITED STATES
PI US 2004191773 A1 20040930
AI US 2003-371526 A1 20030221 (10)
RLI Continuation of Ser. No. US 2002-78949, filed on 20 Feb 2002, PENDING Continuation of Ser. No. US 2000-479783, filed on 7 Jan 2000, PENDING Division of Ser. No. US 1997-870608, filed on 6 Jun 1997, GRANTED, Pat. No. US 6107094 Continuation-in-part of Ser. No. US 1996-659440, filed on 6 Jun 1996, GRANTED, Pat. No. US 5898031
DT Utility
FS APPLICATION
LREP COZEN O'CONNOR, P.C., 1900 MARKET STREET, PHILADELPHIA, PA, 19103-3508
CLMN Number of Claims: 93
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 3918
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligomeric compounds including oligoribonucleotides and

oligoribonucleosides are provided that have subsequences of 2'-pentoribofuranosyl nucleosides that activate dsRNase. The oligoribonucleotides and oligoribonucleosides can include substituent groups for increasing binding affinity to complementary nucleic acid strand as well as substituent groups for increasing nuclease resistance. The oligomeric compounds are useful for diagnostics and other research purposes, for modulating the expression of a protein in organisms, and for the diagnosis, detection and treatment of other conditions susceptible to oligonucleotide therapeutics. Also included in the invention are mammalian ribonucleases, i.e., enzymes that degrade RNA, and substrates for such ribonucleases. Such a ribonuclease is referred to herein as a dsRNase, wherein "ds" indicates the RNase's specificity for certain double-stranded RNA substrates. The artificial substrates for the dsRNases described herein are useful in preparing affinity matrices for purifying mammalian ribonuclease as well as non-degradative RNA-binding proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 8 OF 58 USPATFULL on STN
AN 2004:12990 USPATFULL
TI Allosteric nucleic acid sensor molecules
IN Seiwert, Scott, Pacifica, CA, UNITED STATES
Vaish, Narendra, Denver, CO, UNITED STATES
Zinnen, Shawn, Denver, CO, UNITED STATES
Jadhav, Vasant, Boulder, CO, UNITED STATES
Kossen, Karl, Westminster, CO, UNITED STATES
PI US 2004009510 A1 20040115
AI US 2003-422050 A1 20030423 (10)
RLI Continuation-in-part of Ser. No. WO 2002-US35529, filed on 5 Nov 2002, PENDING Continuation-in-part of Ser. No. US 2002-286492, filed on 1 Nov 2002, PENDING Continuation-in-part of Ser. No. US 2002-283858, filed on 30 Oct 2002, PENDING Continuation-in-part of Ser. No. US 2002-56761, filed on 23 Jan 2002, PENDING Continuation-in-part of Ser. No. US 2001-992160, filed on 5 Nov 2001, PENDING Continuation-in-part of Ser. No. US 2001-877526, filed on 8 Jun 2001, ABANDONED Continuation-in-part of Ser. No. US 2001-800594, filed on 6 Mar 2001, ABANDONED
PRAI US 2000-187128P 20000306 (60)
DT Utility
FS APPLICATION
LREP MCDONNELL BOEHNEN HULBERT & BERGHOFF, 300 SOUTH WACKER DRIVE, SUITE 3200, CHICAGO, IL, 60606
CLMN Number of Claims: 30
ECL Exemplary Claim: 1
DRWN 42 Drawing Page(s)
LN.CNT 5157
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleic acid sensor molecules and methods are provided for the detection and amplification of signaling agents using enzymatic nucleic acid constructs, including Halfzymes, multicomponent nucleic acid sensor molecules, hammerhead enzymatic nucleic acid molecules, inozymes, G-cleaver enzymatic nucleic acid molecules, zinzymes, amberzymes and DNAzymes. Also provided are kits for detection and amplification. The nucleic acid sensor molecules, methods and kits provided herein can be used in diagnostics, nucleic acid circuits, nucleic acid computers, therapeutics, target validation, target discovery, drug optimization, single nucleotide polymorphism (SNP) detection, single nucleotide polymorphism (SNP) scoring, and proteome scoring as well as other uses described herein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 9 OF 58 USPATFULL on STN
AN 2004:7963 USPATFULL
TI Method for sequential support-bound synthesis of conjugated oligomeric compounds
IN Maier, Martin A., Carlsbad, CA, UNITED STATES
Guzaev, Andrei P., Carlsbad, CA, UNITED STATES

Manoharan, Muthiah, Carlsbad, CA, UNITED STATES
PI US 2004006203 A1 20040108
AI US 2002-176419 A1 20020620 (10)
DT Utility
FS APPLICATION
LREP WOODCOCK WASHBURN LLP, ONE LIBERTY PLACE - 46TH FLOOR, PHILADELPHIA, PA, 19103
CLMN Number of Claims: 45
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 2821
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A sequential support-bound synthesis method is disclosed for preparing a conjugated oligomeric compound, preferably a PNA-peptide conjugate or an oligonucleotide-peptide conjugate, using a bridging molecule having at least two N-protecting amino groups. A conjugated oligomeric compound for therapeutic or prophylactic delivery is also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 10 OF 58 USPATFULL on STN
AN 2003:309147 USPATFULL
TI Universal support media for synthesis of oligomeric compounds
IN Guzaev, Andrei P., Vista, CA, United States
Manoharan, Muthiah, Carlsbad, CA, United States
PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 6653468 B1 20031125
AI US 2002-260076 20020930 (10)
PRAI US 2002-400312P 20020731 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Lambkin, Deborah C.
LREP Woodcock Washburn LLP
CLMN Number of Claims: 40
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 3107
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compounds for the synthesis of oligomeric compounds, particularly oligonucleotides and oligonucleotide mimetics, are provided. In addition, methods for functionalizing a support medium with a first monomeric subunit and methods for the synthesis of oligomeric compounds utilizing the novel compounds bound to support media are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 11 OF 58 USPATFULL on STN
AN 2003:258639 USPATFULL
TI 207 human secreted proteins
IN Ni, Jian, Germantown, MD, UNITED STATES
Ebner, Reinhard, Gaithersburg, MD, UNITED STATES
LaFleur, David W., Washington, DC, UNITED STATES
Moore, Paul A., Germantown, MD, UNITED STATES
Olsen, Henrik S., Gaithersburg, MD, UNITED STATES
Rosen, Craig A., Laytonsville, MD, UNITED STATES
Ruben, Steven M., Olney, MD, UNITED STATES
Soppet, Daniel R., Centreville, VA, UNITED STATES
Young, Paul E., Gaithersburg, MD, UNITED STATES
Shi, Yanggu, Gaithersburg, MD, UNITED STATES
Florence, Kimberly A., Rockville, MD, UNITED STATES
Wei, Ying-Fei, Berkeley, CA, UNITED STATES
Florence, Charles, Rockville, MD, UNITED STATES
Hu, Jing-Shan, Mountain View, CA, UNITED STATES
Li, Yi, Sunnyvale, CA, UNITED STATES
Kyaw, Hla, Frederick, MD, UNITED STATES
Fischer, Carrie L., Burke, VA, UNITED STATES
Ferrie, Ann M., Painted Post, NY, UNITED STATES

Fan, Ping, Potomac, MD, UNITED STATES
Feng, Ping, Gaithersburg, MD, UNITED STATES
Endress, Gregory A., Florence, MA, UNITED STATES
Dillon, Patrick J., Carlsbad, CA, UNITED STATES
Carter, Kenneth C., North Potomac, MD, UNITED STATES
Brewer, Laurie A., St. Paul, MN, UNITED STATES
Yu, Guo-Liang, Berkeley, CA, UNITED STATES
Zeng, Zhizhen, Lansdale, PA, UNITED STATES
Greene, John M., Gaithersburg, MD, UNITED STATES

PI US 2003181692 A1 20030925

AI US 2001-933767 A1 20010822 (9)

RLI Continuation-in-part of Ser. No. WO 2001-US5614, filed on 21 Feb 2001, PENDING Continuation-in-part of Ser. No. US 1998-205258, filed on 4 Dec 1998, PENDING

PRAI US 2000-184836P 20000224 (60)
US 2000-193170P 20000329 (60)
US 1997-48885P 19970606 (60)
US 1997-49375P 19970606 (60)
US 1997-48881P 19970606 (60)
US 1997-48880P 19970606 (60)
US 1997-48896P 19970606 (60)
US 1997-49020P 19970606 (60)
US 1997-48876P 19970606 (60)
US 1997-48895P 19970606 (60)
US 1997-48884P 19970606 (60)
US 1997-48894P 19970606 (60)
US 1997-48971P 19970606 (60)
US 1997-48964P 19970606 (60)
US 1997-48882P 19970606 (60)
US 1997-48899P 19970606 (60)
US 1997-48893P 19970606 (60)
US 1997-48900P 19970606 (60)
US 1997-48901P 19970606 (60)
US 1997-48892P 19970606 (60)
US 1997-48915P 19970606 (60)
US 1997-49019P 19970606 (60)
US 1997-48970P 19970606 (60)
US 1997-48972P 19970606 (60)
US 1997-48916P 19970606 (60)
US 1997-49373P 19970606 (60)
US 1997-48875P 19970606 (60)
US 1997-49374P 19970606 (60)
US 1997-48917P 19970606 (60)
US 1997-48949P 19970606 (60)
US 1997-48974P 19970606 (60)
US 1997-48883P 19970606 (60)
US 1997-48897P 19970606 (60)
US 1997-48898P 19970606 (60)
US 1997-48962P 19970606 (60)
US 1997-48963P 19970606 (60)
US 1997-48877P 19970606 (60)
US 1997-48878P 19970606 (60)
US 1997-57645P 19970905 (60)
US 1997-57642P 19970905 (60)
US 1997-57668P 19970905 (60)
US 1997-57635P 19970905 (60)
US 1997-57627P 19970905 (60)
US 1997-57667P 19970905 (60)
US 1997-57666P 19970905 (60)
US 1997-57764P 19970905 (60)
US 1997-57643P 19970905 (60)
US 1997-57769P 19970905 (60)
US 1997-57763P 19970905 (60)
US 1997-57650P 19970905 (60)
US 1997-57584P 19970905 (60)
US 1997-57647P 19970905 (60)
US 1997-57661P 19970905 (60)
US 1997-57662P 19970905 (60)

US 1997-57646P	19970905	(60)
US 1997-57654P	19970905	(60)
US 1997-57651P	19970905	(60)
US 1997-57644P	19970905	(60)
US 1997-57765P	19970905	(60)
US 1997-57762P	19970905	(60)
US 1997-57775P	19970905	(60)
US 1997-57648P	19970905	(60)
US 1997-57774P	19970905	(60)
US 1997-57649P	19970905	(60)
US 1997-57770P	19970905	(60)
US 1997-57771P	19970905	(60)
US 1997-57761P	19970905	(60)
US 1997-57760P	19970905	(60)
US 1997-57776P	19970905	(60)
US 1997-57778P	19970905	(60)
US 1997-57629P	19970905	(60)
US 1997-57628P	19970905	(60)
US 1997-57777P	19970905	(60)
US 1997-57634P	19970905	(60)
US 1997-70923P	19971218	(60)
US 1998-92921P	19980715	(60)
US 1998-94657P	19980730	(60)
US 1997-70923P	19971218	(60)
US 1998-92921P	19980715	(60)
US 1998-94657P	19980730	(60)

DT Utility
FS APPLICATION
LREP HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
CLMN Number of Claims: 23
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 32746
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to novel human secreted proteins and isolated nucleic acids containing the coding regions of the genes encoding such proteins. Also provided are vectors, host cells, antibodies, and recombinant methods for producing human secreted proteins. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating diseases, disorders, and/or conditions related to these novel human secreted proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 12 OF 58 USPATFULL on STN
AN 2003:244271 USPATFULL
TI Enhanced triple-helix and double-helix formation with **oligomers** containing **modified** pyrimidines
IN Froehler, Brian, Belmont, CA, UNITED STATES
Wagner, Rick, Belmont, CA, UNITED STATES
Matteucci, Mark, Burlingame, CA, UNITED STATES
Jones, Robert J., Millbrae, CA, UNITED STATES
Gutierrez, Arnold J., San Jose, CA, UNITED STATES
Pudlo, Jeff, Burlingame, CA, UNITED STATES

PI	US 2003170680	A1	20030911
	US 2004265802	A9	20041230
	US 6875593	B2	20050405
AI	US 2002-294203	A1	20021114 (10)

RLI Continuation of Ser. No. US 2001-24818, filed on 18 Dec 2001, PENDING Division of Ser. No. US 1995-559738, filed on 15 Nov 1995, GRANTED, Pat. No. US 5684800
DT Utility
FS APPLICATION
LREP WOODCOCK WASHBURN LLP, ONE LIBERTY PLACE, 46TH FLOOR, 1650 MARKET STREET, PHILADELPHIA, PA, 19103
CLMN Number of Claims: 127
ECL Exemplary Claim: 1
DRWN 29 Drawing Page(s)

LN.CNT 3551
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel oligomers are disclosed which have enhanced ability with respect to forming duplexes or triplexes compared with oligomers containing only conventional bases. The oligomers contain the bases 5-(1-propynyl)uracil, 5-(1-propynyl)cytosine or related analogs. The oligomers of the invention are capable of (i) forming triplexes with various target sequences such as virus or oncogene sequences by coupling into the major groove of a target DNA duplex at physiological pH or (ii) forming duplexes by binding to single-stranded DNA or to RNA encoded by target genes. The oligomers of the invention can be incorporated into pharmaceutically acceptable carriers and can be constructed to have any desired sequence, provided the sequence normally includes one or more bases that is replaced with the analogs of the invention. Compositions of the invention can be used as pharmaceutical agents to treat various diseases such as those caused by viruses and can be used for diagnostic purposes in order to detect viruses or disease conditions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 13 OF 58 USPATFULL on STN
AN 2003:237907 USPATFULL
TI Compositions and methods for the therapy and diagnosis of colon cancer
IN King, Gordon E., Shoreline, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES
Secrist, Heather, Seattle, WA, UNITED STATES
Jiang, Yuqiu, Kent, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2003166064 A1 20030904
AI US 2002-99926 A1 20020314 (10)
RLI Continuation-in-part of Ser. No. US 2001-33528, filed on 26 Dec 2001, PENDING Continuation-in-part of Ser. No. US 2001-920300, filed on 31 Jul 2001, PENDING
PRAI US 2001-302051P 20010629 (60)
US 2001-279763P 20010328 (60)
US 2000-223283P 20000803 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 8531
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 14 OF 58 USPATFULL on STN
AN 2003:220446 USPATFULL
TI Oligonucleotide and nucleotide amine analogs, methods of synthesis and use
IN Manoharan, Muthiah, Carlsbad, CA, UNITED STATES
Cook, P. Dan, San Marcos, CA, UNITED STATES
PA ISIS Pharmaceuticals, Inc. (non-U.S. corporation)
PI US 2003153737 A1 20030814
US 6828434 B2 20041207
AI US 2002-192437 A1 20020710 (10)
RLI Division of Ser. No. US 2000-689964, filed on 12 Oct 2000, GRANTED, Pat.

No. US 6495671 Division of Ser. No. US 1995-397277, filed on 9 Mar 1995, GRANTED, Pat. No. US 6235886 A 371 of International Ser. No. WO 1993-US8367, filed on 3 Sep 1993, PENDING A 371 of International Ser. No. US 1992-943516, filed on 11 Sep 1992, ABANDONED
DT Utility
FS APPLICATION
LREP Woodcock Washburn LLP, One Liberty Place - 46th Floor, Philadelphia, PA, 19103
CLMN Number of Claims: 91
ECL Exemplary Claim: 1
DRWN 3 Drawing Page(s)
LN.CNT 2266
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel amine compounds are provided by the present invention. Methods of preparing and using said novel amine compounds are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 15 OF 58 USPATFULL on STN
AN 2003:173929 USPATFULL
TI Oligoribonucleotides and ribonucleases for cleaving RNA
IN Crooke, Stanley T., Carlsbad, CA, UNITED STATES
PI US 2003119777 A1 20030626
AI US 2002-281297 A1 20021025 (10)
RLI Division of Ser. No. US 2000-479783, filed on 7 Jan 2000, PENDING Division of Ser. No. US 1997-870608, filed on 6 Jun 1997, GRANTED, Pat. No. US 6107094 Continuation-in-part of Ser. No. US 1996-659440, filed on 6 Jun 1996, GRANTED, Pat. No. US 5898031
DT Utility
FS APPLICATION
LREP COZEN O'CONNOR, 1900 Market Street, Philadelphia, PA, 19103
CLMN Number of Claims: 93
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 3925
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligomeric compounds including oligoribonucleotides and oligoribonucleosides are provided that have subsequences of 2'-pentoribofuranosyl nucleosides that activate dsRNase. The oligoribonucleotides and oligoribonucleosides can include substituent groups for increasing binding affinity to complementary nucleic acid strand as well as substituent groups for increasing nuclease resistance. The oligomeric compounds are useful for diagnostics and other research purposes, for modulating the expression of a protein in organisms, and for the diagnosis, detection and treatment of other conditions susceptible to oligonucleotide therapeutics. Also included in the invention are mammalian ribonucleases, i.e., enzymes that degrade RNA, and substrates for such ribonucleases. Such a ribonuclease is referred to herein as a dsRNase, wherein "ds" indicates the RNase's specificity for certain double-stranded RNA substrates. The artificial substrates for the dsRNases described herein are useful in preparing affinity matrices for purifying mammalian ribonuclease as well as non-degradative RNA-binding proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 16 OF 58 USPATFULL on STN
AN 2003:141138 USPATFULL
TI Enhanced triple-helix and double-helix formation with **oligomers** containing **modified** pyrimidines
IN Froehler, Brian, Belmont, CA, UNITED STATES
Wagner, Rick, Belmont, CA, UNITED STATES
Matteucci, Mark, Burlingame, CA, UNITED STATES
Jones, Robert J., Millbrae, CA, UNITED STATES
Gutierrez, Arnold J., San Jose, CA, UNITED STATES
Pudlo, Jeff, Burlingame, CA, UNITED STATES
PI US 2003096980 A1 20030522
AI US 2001-24818 A1 20011218 (10)

RLI Division of Ser. No. US 1996-599738, filed on 12 Feb 1996, GRANTED, Pat. No. US 6380368
DT Utility
FS APPLICATION
LREP Joseph Lucci, Esq., Woodcock Washburn Kurtz Mackiewicz & Norris, 46th Floor, One Liberty Place, Philadelphia, PA, 19103
CLMN Number of Claims: 127
ECL Exemplary Claim: 1
DRWN 29 Drawing Page(s)
LN.CNT 3552
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel oligomers are disclosed which have enhanced ability with respect to forming duplexes or triplexes compared with oligomers containing only conventional bases. The oligomers contain the bases 5-(1-propynyl)uracil, 5-(1-propynyl)cytosine or related analogs. The oligomers of the invention are capable of (i) forming triplexes with various target sequences such as virus or oncogene sequences by coupling into the major groove of a target DNA duplex at physiological pH or (ii) forming duplexes by binding to single-stranded DNA or to RNA encoded by target genes. The oligomers of the invention can be incorporated into pharmaceutically acceptable carriers and can be constructed to have any desired sequence, provided the sequence normally includes one or more bases that is replaced with the analogs of the invention. Compositions of the invention can be used as pharmaceutical agents to treat various diseases such as those caused by viruses and can be used for diagnostic purposes in order to detect viruses or disease conditions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 17 OF 58 USPATFULL on STN
AN 2003:140942 USPATFULL
TI Oligoribonucleotides and ribonucleases for cleaving RNA
IN Crooke, Stanley T., Carlsbad, CA, UNITED STATES
PI US 2003096784 A1 20030522
AI US 2002-281349 A1 20021025 (10)
RLI Division of Ser. No. US 2000-479783, filed on 7 Jan 2000, PENDING Division of Ser. No. US 1997-870608, filed on 6 Jun 1997, GRANTED, Pat. No. US 6107094 Continuation-in-part of Ser. No. US 1996-659440, filed on 6 Jun 1996, GRANTED, Pat. No. US 5898031
DT Utility
FS APPLICATION
LREP COZEN O'CONNOR, 1900 Market Street, Philadelphia, PA, 19103
CLMN Number of Claims: 93
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 3925
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligomeric compounds including oligoribonucleotides and oligoribonucleosides are provided that have subsequences of 2'-pentoribofuranosyl nucleosides that activate dsRNase. The oligoribonucleotides and oligoribonucleosides can include substituent groups for increasing binding affinity to complementary nucleic acid strand as well as substituent groups for increasing nuclease resistance. The oligomeric compounds are useful for diagnostics and other research purposes, for modulating the expression of a protein in organisms, and for the diagnosis, detection and treatment of other conditions susceptible to oligonucleotide therapeutics. Also included in the invention are mammalian ribonucleases, i.e., enzymes that degrade RNA, and substrates for such ribonucleases. Such a ribonuclease is referred to herein as a dsRNase, wherein "ds" indicates the RNase's specificity for certain double-stranded RNA substrates. The artificial substrates for the dsRNases described herein are useful in preparing affinity matrices for purifying mammalian ribonuclease as well as non-degradative RNA-binding proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 18 OF 58 USPATFULL on STN

AN 2003:140446 USPATFULL
TI Oligoribonucleotides and ribonucleases for cleaving RNA
IN Crooke, Stanley T., Carlsbad, CA, UNITED STATES
PI US 2003096287 A1 20030522
AI US 2002-281312 A1 20021025 (10)
RLI Division of Ser. No. US 2000-479783, filed on 7 Jan 2000, PENDING Division of Ser. No. US 1997-870608, filed on 6 Jun 1997, GRANTED, Pat. No. US 6107094 Continuation-in-part of Ser. No. US 1996-659440, filed on 6 Jun 1996, GRANTED, Pat. No. US 5898031
DT Utility
FS APPLICATION
LREP COZEN O'CONNOR, 1900 Market Street, Philadelphia, PA, 19103
CLMN Number of Claims: 93
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 3909
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligomeric compounds including oligoribonucleotides and oligoribonucleosides are provided that have subsequences of 2'-pentoribofuranosyl nucleosides that activate dsRNase. The oligoribonucleotides and oligoribonucleosides can include substituent groups for increasing binding affinity to complementary nucleic acid strand as well as substituent groups for increasing nuclease resistance. The oligomeric compounds are useful for diagnostics and other research purposes, for modulating the expression of a protein in organisms, and for the diagnosis, detection and treatment of other conditions susceptible to oligonucleotide therapeutics. Also included in the invention are mammalian ribonucleases, i.e., enzymes that degrade RNA, and substrates for such ribonucleases. Such a ribonuclease is referred to herein as a dsRNase, wherein "ds" indicates the RNase's specificity for certain double-stranded RNA substrates. The artificial substrates for the dsRNases described herein are useful in preparing affinity matrices for purifying mammalian ribonuclease as well as non-degradative RNA-binding proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 19 OF 58 USPATFULL on STN
AN 2003:140445 USPATFULL
TI Oligoribonucleotides and ribonucleases for cleaving RNA
IN Crooke, Stanley T., Carlsbad, CA, UNITED STATES
PI US 2003096286 A1 20030522
AI US 2002-280600 A1 20021025 (10)
RLI Division of Ser. No. US 2000-479783, filed on 7 Jan 2000, PENDING Division of Ser. No. US 1997-870608, filed on 6 Jun 1997, GRANTED, Pat. No. US 6107094 Continuation-in-part of Ser. No. US 1996-659440, filed on 6 Jun 1996, GRANTED, Pat. No. US 5898031
DT Utility
FS APPLICATION
LREP COZEN O'CONNOR, 1900 Market Street, Philadelphia, PA, 19103
CLMN Number of Claims: 93
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 3943
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligomeric compounds including oligoribonucleotides and oligoribonucleosides are provided that have subsequences of 2'-pentoribofuranosyl nucleosides that activate dsRNase. The oligoribonucleotides and oligoribonucleosides can include substituent groups for increasing binding affinity to complementary nucleic acid strand as well as substituent groups for increasing nuclease resistance. The oligomeric compounds are useful for diagnostics and other research purposes, for modulating the expression of a protein in organisms, and for the diagnosis, detection and treatment of other conditions susceptible to oligonucleotide therapeutics. Also included in the invention are mammalian ribonucleases, i.e., enzymes that degrade RNA, and substrates for such ribonucleases. Such a ribonuclease is referred to herein as a dsRNase, wherein "ds" indicates the RNase's specificity

for certain double-stranded RNA substrates. The artificial substrates for the dsRNases described herein are useful in preparing affinity matrices for purifying mammalian ribonuclease as well as non-degradative RNA-binding proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 20 OF 58 USPATFULL on STN
AN 2003:106233 USPATFULL
TI Compositions and methods for the therapy and diagnosis of pancreatic cancer
IN Benson, Darin R., Seattle, WA, UNITED STATES
Kalos, Michael D., Seattle, WA, UNITED STATES
Lodes, Michael J., Seattle, WA, UNITED STATES
Persing, David H., Redmond, WA, UNITED STATES
Hepler, William T., Seattle, WA, UNITED STATES
Jiang, Yuqiu, Kent, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2003073144 A1 20030417
AI US 2002-60036 A1 20020130 (10)
PRAI US 2001-333626P 20011127 (60)
US 2001-305484P 20010712 (60)
US 2001-265305P 20010130 (60)
US 2001-267568P 20010209 (60)
US 2001-313999P 20010820 (60)
US 2001-291631P 20010516 (60)
US 2001-287112P 20010428 (60)
US 2001-278651P 20010321 (60)
US 2001-265682P 20010131 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 14253
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly pancreatic cancer, are disclosed. Illustrative compositions comprise one or more pancreatic tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly pancreatic cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 21 OF 58 USPATFULL on STN
AN 2003:93794 USPATFULL
TI Nucleic acid sensor molecules
IN Usman, Nassim, Lafayette, CO, UNITED STATES
McSwiggen, James A., Boulder, CO, UNITED STATES
Zinnen, Shawn, Denver, CO, UNITED STATES
Seiwert, Scott, Lyons, CO, UNITED STATES
Haeberli, Peter, Berthoud, CO, UNITED STATES
Chowrira, Bharat, Broomfield, CO, UNITED STATES
Blatt, Lawrence, Boulder, CO, UNITED STATES
Vaish, Narendra K., Boulder, CO, UNITED STATES
PI US 2003065155 A1 20030403
AI US 2002-56761 A1 20020123 (10)
RLI Continuation-in-part of Ser. No. US 2001-992160, filed on 5 Nov 2001, PENDING Continuation-in-part of Ser. No. US 2001-877526, filed on 8 Jun 2001, PENDING Continuation-in-part of Ser. No. US 2001-800594, filed on 6 Mar 2001, PENDING
PRAI WO 2001-US7163 20010306
US 2000-187128P 20000306 (60)

DT Utility
FS APPLICATION
LREP MCDONNELL BOEHNEN HULBERT & BERGHOFF, 300 SOUTH WACKER DRIVE, SUITE 3200, CHICAGO, IL, 60606
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 55 Drawing Page(s)
LN.CNT 5302
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleic acid sensor molecules and methods are provided for the detection and amplification of signaling agents using enzymatic nucleic acid constructs, including hammerhead enzymatic nucleic acid molecules, inozymes, G-cleaver enzymatic nucleic acid molecules, zinzymes, amberzymes and DNAzymes. Also provided are kits for detection and amplification. The nucleic acid sensor molecules, methods and kits provided herein can be used in diagnostics, nucleic acid circuits, nucleic acid computers, therapeutics, target validation, target discovery, drug optimization, single nucleotide polymorphism (SNP) detection, single nucleotide polymorphism (SNP) scoring, and proteome scoring as well as other uses described herein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 22 OF 58 USPATFULL on STN
AN 2003:65581 USPATFULL
TI Backbone **modified oligonucleotide** analogues
IN Cook, Phillip Dan, Carlsbad, CA, UNITED STATES
Sanghvi, Yogesh Shantilal, San Marcos, CA, UNITED STATES
Vasseur, Jean Jacques, Montpellier, FRANCE
Debart, Francoise, Montpellier, FRANCE
PA ISIS Pharmaceuticals, Inc., Carls bad, CA (U.S. corporation)
PI US 2003045705 A1 20030306
AI US 2002-153320 A1 20020522 (10)
RLI Continuation of Ser. No. US 1998-58470, filed on 10 Apr 1998, ABANDONED Division of Ser. No. US 1996-763354, filed on 11 Dec 1996, GRANTED, Pat. No. US 5965721 Continuation of Ser. No. US 1994-150079, filed on 7 Apr 1994, GRANTED, Pat. No. US 5610289 Continuation-in-part of Ser. No. US 1991-703619, filed on 21 May 1991, GRANTED, Pat. No. US 5378825 Continuation-in-part of Ser. No. US 1990-566836, filed on 13 Aug 1990, GRANTED, Pat. No. US 5223618 Continuation-in-part of Ser. No. US 1990-558663, filed on 27 Jul 1990, GRANTED, Pat. No. US 5138045
DT Utility
FS APPLICATION
LREP WOODCOCK WASHBURN LLP, ONE LIBERTY PLACE, 46TH FLOOR, 1650 MARKET STREET, PHILADELPHIA, PA, 19103
CLMN Number of Claims: 96
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 2948
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Therapeutic oligonucleotide analogues which have improved nuclease resistance and improved cellular uptake are provided. Replacement of the normal phosphorodiester inter-sugar linkages found in natural oligomers with four atom linking groups forms unique di- and poly-nucleosides and nucleotides useful in regulating RNA expression and in therapeutics. Methods of synthesis and use are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 23 OF 58 USPATFULL on STN
AN 2003:57413 USPATFULL
TI Carbamate-derivatized nucleosides and oligonucleosides
IN Cook, Phillip Dan, Vista, CA, UNITED STATES
Manoharan, Muthiah, Carlsbad, CA, UNITED STATES
PA ISIS Pharmaceuticals, Inc. (U.S. corporation)
PI US 2003039977 A1 20030227
US 6803198 B2 20041012
AI US 2001-934138 A1 20010821 (9)

RLI Division of Ser. No. US 2000-688394, filed on 16 Oct 2000, GRANTED, Pat. No. US 6322987
DT Utility
FS APPLICATION
LREP Woodcock Washburn Kurtz, Mackiewicz & Norris LLP, One Liberty Place - 46th Floor, Philadelphia, PA, 19103
CLMN Number of Claims: 34
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1289
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleosides and oligonucleosides functionalized to include carbamate functionality, and derivatives thereof. In certain embodiments, the compounds of the invention further include steroids, reporter molecules, reporter enzymes, lipophilic molecules, peptides or proteins attached to the nucleosides through the carbamate group.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 24 OF 58 USPATFULL on STN
AN 2003:10600 USPATFULL
TI Nucleic acid sensor molecules
IN Usman, Nassim, Lafayette, CO, UNITED STATES
McSwiggen, James A., Boulder, CO, UNITED STATES
Zinnen, Shawn, Denver, CO, UNITED STATES
Seiwert, Scott, Lyons, CO, UNITED STATES
Haeberli, Peter, Berthoud, CO, UNITED STATES
Chowrira, Bharat, Broomfield, CO, UNITED STATES
Blatt, Lawrence, Boulder, CO, UNITED STATES
Vaish, Narendra, Boulder, CO, UNITED STATES
PI US 2003008295 A1 20030109
AI US 2001-992160 A1 20011105 (9)
RLI Continuation-in-part of Ser. No. US 2001-877526, filed on 8 Jun 2001, PENDING Continuation-in-part of Ser. No. US 2001-800594, filed on 6 Mar 2001, PENDING
PRAI WO 2001-US7163 20010306
US 2000-187128P 20000306 (60)
DT Utility
FS APPLICATION
LREP MCDONNELL BOEHNEN HULBERT & BERGHOFF, 300 SOUTH WACKER DRIVE, SUITE 3200, CHICAGO, IL, 60606
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 42 Drawing Page(s)
LN.CNT 4858
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleic acid sensor molecules and methods are disclosed for the detection and amplification of signaling agents using enzymatic nucleic acid constructs, including hammerhead enzymatic nucleic acid molecules, inozymes, G-cleaver enzymatic nucleic acid molecules, zinzymes, amberzymes and DNAzymes; kits for detection and amplification; use in diagnostics, nucleic acid circuits, nucleic acid computers, therapeutics, target validation, target discovery, drug optimization, SNP detection, SNP scoring, proteome scoring and other uses are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 25 OF 58 USPATFULL on STN
AN 2003:4281 USPATFULL
TI Sugar **modified oligonucleotides**
IN Cook, Phillip Dan, San Marcos, CA, UNITED STATES
Kawasaki, Andrew Mamoru, Oceanside, CA, UNITED STATES
PA ISIS Pharmaceuticals, Inc. (U.S. corporation)
PI US 2003004325 A1 20030102
AI US 2001-996263 A1 20011128 (9)
RLI Continuation of Ser. No. US 1998-135202, filed on 17 Aug 1998, PENDING Division of Ser. No. US 1995-471973, filed on 6 Jun 1995, PATENTED

Continuation-in-part of Ser. No. US 1992-835932, filed on 5 Mar 1992, PATENTED A 371 of International Ser. No. WO 1991-US5720, filed on 12 Aug 1991, UNKNOWN Continuation-in-part of Ser. No. US 1990-566977, filed on 13 Aug 1990, ABANDONED Continuation-in-part of Ser. No. US 1994-244993, filed on 21 Jun 1994, PATENTED A 371 of International Ser. No. WO 1992-US11339, filed on 23 Dec 1992, UNKNOWN Continuation-in-part of Ser. No. US 1991-814961, filed on 24 Dec 1991, ABANDONED Continuation-in-part of Ser. No. US 1992-854634, filed on 1 Jul 1992, ABANDONED A 371 of International Ser. No. WO 1991-US243, filed on 11 Jan 1991, UNKNOWN Continuation-in-part of Ser. No. US 1990-463358, filed on 11 Jan 1990, ABANDONED

DT Utility
FS APPLICATION
LREP Woodcock Washburn LLP, One Liberty Place - 46th Floor, Philadelphia, PA, 19103
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN 9 Drawing Page(s)
LN.CNT 3452
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods are provided for the treatment and diagnosis of diseases amenable to modulation of the production of selected proteins. In accordance with preferred embodiments, oligonucleotides and oligonucleotide analogs are provided which are specifically hybridizable with a selected sequence of RNA or DNA wherein at least one of the 2'-deoxyfuranosyl moieties of the nucleoside unit is modified. Treatment of diseases caused by various viruses and other causative agents is provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 26 OF 58 USPATFULL on STN
AN 2002:346781 USPATFULL
TI Methods for diagnosing cancer or precancer based upon hnRNP protein expression
IN Mulshine, James L., Bethesda, MD, United States
Tockman, Melvyn S., Tampa, FL, United States
PA The United States of America as represented by the Department of Health and Human Services, Washington, DC, United States (U.S. government)
PI US 6500625 B1 20021231
AI US 2000-542552 20000403 (9)
RLI Continuation of Ser. No. US 1999-255609, filed on 19 Feb 1999 Division of Ser. No. US 1995-538711, filed on 2 Oct 1995, now patented, Pat. No. US 5994062, issued on 30 Nov 1999
DT Utility
FS GRANTED
EXNAM Primary Examiner: Caputa, Anthony C.; Assistant Examiner: Harris, Alana M.
LREP Leydig, Voit & Mayer, Ltd.
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 26 Drawing Figure(s); 17 Drawing Page(s)
LN.CNT 2523
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is a purified and isolated epithelial protein, peptide and variants thereof whose increased presence in an epithelial cell is indicative of precancer. One epithelial protein which is an early detection marker for lung cancer was purified from two human lung cancer cell lines, NCI-H720 and NCI-H157. Using a six-step procedure, the epithelial protein was purified using a Western blot detection system under both non-reducing and reducing conditions. Purification steps included anion exchange chromatography, preparative isoelectric focusing, polymer-based C.sub.18 HPLC and analytic C.sub.4 HPLC. After an approximately 25,000 fold purification the immunostaining protein was >90% pure as judged by Coomassie blue staining after reducing SDS-PAGE. The primary epithelial protein shares some sequence homology with the heterogeneous nuclear ribonucleoprotein (hnRNP) A2. A minor co-purifying epithelial protein shares some sequence homology with the splice variant

hnRNP-B1. Molecular analysis of primary normal bronchial epithelial cell cultures demonstrated low levels of epithelial protein expression, consistent with immunohistochemical staining of clinical samples, and an increased level of expression in most lung cancer cells. The epithelial protein is a marker of epithelial transformation in lung, breast, bone, ovary, prostate, kidney, melanoma and myeloma and may be casual in the process of carcinogenesis. Methods are provided for monitoring the expression of the epithelial protein, peptides and variants using molecular and immunological techniques as a screen for precancer and cancer in mammals.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 27 OF 58 USPATFULL on STN
AN 2002:332819 USPATFULL
TI Oligonucleotide and nucleotide amine analogs, methods of synthesis and use
IN Manoharan, Muthiah, Carlsbad, CA, United States
Cook, P. Dan, San Marcos, CA, United States
PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 6495671 B1 20021217
AI US 2000-689964 20001012 (9)
RLI Division of Ser. No. US 397277, now patented, Pat. No. US 6235886 Continuation-in-part of Ser. No. US 1992-943516, filed on 11 Sep 1992, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Fredman, Jeffrey
LREP Woodcock Washburn LLP
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 1759
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel amine compounds are provided by the present invention. Methods of preparing and using said novel amine compounds are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 28 OF 58 USPATFULL on STN
AN 2002:323331 USPATFULL
TI Backbone-**modified oligonucleotide** analogs and methods for using same
IN Mesmaeker, Alain De, Kaenerkinden, SWITZERLAND
Lebreton, Jacques, Marseille, FRANCE
Waldner, Adrian, Allschwil, SWITZERLAND
Cook, Phillip Dan, Carlsbad, CA, UNITED STATES
PI US 2002183502 A1 20021205
AI US 2002-155950 A1 20020524 (10)
RLI Continuation of Ser. No. US 1996-768780, filed on 13 Dec 1996, ABANDONED Division of Ser. No. US 1994-140206, filed on 25 Apr 1994, GRANTED, Pat. No. US 5602240 Continuation-in-part of Ser. No. US 1991-703619, filed on 21 May 1991, GRANTED, Pat. No. US 5378825
DT Utility
FS APPLICATION
LREP WOODCOCK WASHBURN LLP, ONE LIBERTY PLACE, 46TH FLOOR, 1650 MARKET STREET, PHILADELPHIA, PA, 19103
CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 2684
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Therapeutic oligonucleotide analogs which have improved nuclease resistance and improved cellular uptake are provided. Replacement of phosphorodiester inter-sugar linkages found in wild type oligomers with four atom linking groups forms unique di- and poly-nucleosides and nucleotides useful in regulating RNA expression and in therapeutics.

Methods of synthesis and use are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 29 OF 58 USPATFULL on STN
AN 2002:295143 USPATFULL
TI Oligoribonucleotides and ribonucleases for cleaving RNA
IN Crooke, Stanley T., Carlsbad, CA, UNITED STATES
PI US 2002165189 A1 20021107
AI US 2002-78949 A1 20020220 (10)
RLI Continuation of Ser. No. US 2000-479783, filed on 7 Jan 2000, PENDING
DT Utility
FS APPLICATION
LREP Woodcock Washburn LLP, One Liberty Place, 46th Floor, Philadelphia, PA, 19103
CLMN Number of Claims: 93
ECL Exemplary Claim: 1
DRWN 10 Drawing Page(s)
LN.CNT 3922
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligomeric compounds including oligoribonucleotides and oligoribonucleosides are provided that have subsequences of 2'-pentoribofuranosyl nucleosides that activate dsRNase. The oligoribonucleotides and oligoribonucleosides can include substituent groups for increasing binding affinity to complementary nucleic acid strand as well as substituent groups for increasing nuclease resistance. The oligomeric compounds are useful for diagnostics and other research purposes, for modulating the expression of a protein in organisms, and for the diagnosis, detection and treatment of other conditions susceptible to oligonucleotide therapeutics. Also included in the invention are mammalian ribonucleases, i.e., enzymes that degrade RNA, and substrates for such ribonucleases. Such a ribonuclease is referred to herein as a dsRNase, wherein "ds" indicates the RNase's specificity for certain double-stranded RNA substrates. The artificial substrates for the dsRNases described herein are useful in preparing affinity matrices for purifying mammalian ribonuclease as well as non-degradative RNA-binding proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 30 OF 58 USPATFULL on STN
AN 2002:288102 USPATFULL
TI Compositions and methods for modulating RNA
IN Cook, Phillip Dan, Carlsbad, CA, UNITED STATES
Bruice, Thomas, Carlsbad, CA, UNITED STATES
Guinosso, Charles John, Vista, CA, UNITED STATES
Kawasaki, Andrew Mamoru, Oceanside, CA, UNITED STATES
Griffey, Richard, San Marcos, CA, UNITED STATES
PA ISIS Pharmaceuticals, Inc. (U.S. corporation)
PI US 2002160972 A1 20021031
US 6610663 B2 20030826
AI US 2001-974326 A1 20011010 (9)
RLI Division of Ser. No. US 1994-295744, filed on 30 Aug 1994, PENDING Continuation-in-part of Ser. No. US 1992-942961, filed on 10 Sep 1992, GRANTED, Pat. No. US 5514786 Continuation-in-part of Ser. No. US 1992-846556, filed on 5 Mar 1992, GRANTED, Pat. No. US 5359051 Continuation-in-part of Ser. No. WO 1991-US243, filed on 11 Jan 1991, UNKNOWN Continuation-in-part of Ser. No. US 1990-463358, filed on 11 Jan 1990, ABANDONED
PRAI WO 1993-US2057 19930305
DT Utility
FS APPLICATION
LREP Woodcock Washburn LLP, 46th Floor, One Liberty Place, Philadelphia, PA, 19103
CLMN Number of Claims: 60
ECL Exemplary Claim: 1
DRWN 23 Drawing Page(s)
LN.CNT 2569

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for modulating the activity of RNA are disclosed. In accordance with preferred embodiments, antisense compositions are prepared comprising targeting and reactive portions. The reactive portions preferably comprise one or two imidazole functionalities conjugated to the targeting oligonucleotide via linkers with or without intervening intercalating moieties. Therapeutics, diagnostics and research methods also are disclosed, as are synthetic nucleosides and nucleoside fragments that can be elaborated into oligonucleotides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 31 OF 58 USPATFULL on STN
AN 2002:272801 USPATFULL
TI Compositions and methods for the therapy and diagnosis of colon cancer
IN Stolk, John A., Bothell, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES
Chenault, Ruth A., Seattle, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2002150922 A1 20021017
AI US 2001-998598 A1 20011116 (9)
PRAI US 2001-304037P 20010710 (60)
US 2001-279670P 20010328 (60)
US 2001-267011P 20010206 (60)
US 2000-252222P 20001120 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 9233
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 32 OF 58 USPATFULL on STN
AN 2002:243051 USPATFULL
TI Compositions and methods for the therapy and diagnosis of ovarian cancer
IN Algate, Paul A., Issaquah, WA, UNITED STATES
Jones, Robert, Seattle, WA, UNITED STATES
Harlocker, Susan L., Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)
PI US 2002132237 A1 20020919
AI US 2001-867701 A1 20010529 (9)
PRAI US 2000-207484P 20000526 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 25718
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly ovarian cancer, are disclosed. Illustrative compositions

comprise one or more ovarian tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly ovarian cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 33 OF 58 USPATFULL on STN
AN 2002:242791 USPATFULL
TI Compositions and methods for the therapy and diagnosis of colon cancer
IN King, Gordon E., Shoreline, WA, UNITED STATES
Meagher, Madeleine Joy, Seattle, WA, UNITED STATES
Xu, Jiangchun, Bellevue, WA, UNITED STATES
Secrist, Heather, Seattle, WA, UNITED STATES
PA Corixa Corporation, Seattle, WA, UNITED STATES (U.S. corporation)
PI US 2002131971 A1 20020919
AI US 2001-33528 A1 20011226 (10)
RLI Continuation-in-part of Ser. No. US 2001-920300, filed on 31 Jul 2001, PENDING
PRAI US 2001-302051P 20010629 (60)
US 2001-279763P 20010328 (60)
US 2000-223283P 20000803 (60)
DT Utility
FS APPLICATION
LREP SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 8083
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for the therapy and diagnosis of cancer, particularly colon cancer, are disclosed. Illustrative compositions comprise one or more colon tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly colon cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 34 OF 58 USPATFULL on STN
AN 2002:239161 USPATFULL
TI Sugar-**modified** gapped **oligonucleotides**
IN Martin, Pierre, Rheinfelden, SWITZERLAND
Altmann, Karl-Heinz, Reinach, SWITZERLAND
Cook, Phillip Dan, Vista, CA, United States
Monia, Brett P., Carlsbad, CA, United States
PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
Novartis AG, SWITZERLAND (non-U.S. corporation)
PI US 6451991 B1 20020917
AI US 1997-802331 19970211 (8)
PRAI US 1996-11620P 19960214 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Marschel, Ardin H.
LREP Woodcock Washburn, LLP
CLMN Number of Claims: 14
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 15 Drawing Page(s)
LN.CNT 2128
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligonucleotides are provided which have increased nuclease resistance, substituent groups for increasing binding affinity to complementary

nucleic acid strand, and subsequences of 2'-deoxy-erythro-pentofuranosyl nucleosides that activate RNase H. Such oligonucleotides are useful for diagnostics and other research purposes, for modulating the expression of a protein in organisms, and for the diagnosis, detection and treatment of other conditions susceptible to ooligonucleotide therapeutics.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 35 OF 58 USPATFULL on STN
AN 2002:191503 USPATFULL
TI Nucleic acid sensor molecules
IN Usman, Nassim, Lafayette, CO, UNITED STATES
McSwiggen, James A., Boulder, CO, UNITED STATES
Zinnen, Shawn, Denver, CO, UNITED STATES
Seiwert, Scott, Lyons, CO, UNITED STATES
Haeberli, Peter, Berthoud, CO, UNITED STATES
Chowrira, Bharat, Broomfield, CO, UNITED STATES
Blatt, Lawrence, Boulder, CO, UNITED STATES
Vaish, Narendra K., Boulder, CO, UNITED STATES
PI US 2002102568 A1 20020801
AI US 2001-877526 A1 20010608 (9)
PRAI WO 2001-US7163 20010306
US 2000-187128P 20000306 (60)
DT Utility
FS APPLICATION
LREP MCDONNELL BOEHNEN HULBERT & BERGHOFF, 300 SOUTH WACKER DRIVE, SUITE 3200, CHICAGO, IL, 60606
CLMN Number of Claims: 54
ECL Exemplary Claim: 1
DRWN 40 Drawing Page(s)
LN.CNT 4865
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleic acid sensor molecules and methods are disclosed for the detection and amplification of signaling agents using enzymatic nucleic acid constructs, including hammerhead enzymatic nucleic acid molecules, inozymes, G-cleaver enzymatic nucleic acid molecules, zinzymes, amberzymes and DNAzymes; kits for detection and amplification; use in diagnostics, nucleic acid circuits, nucleic acid computers, therapeutics, target validation, target discovery, drug optimization, SNP detection, SNP scoring, proteome scoring and other uses are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 36 OF 58 USPATFULL on STN
AN 2002:130085 USPATFULL
TI Oligonucleotide and nucleotide amine analogs, methods of synthesis and use
IN Manoharan, Muthiah, Carlsbad, CA, United States
Cook, P. Dan, San Marcos, CA, United States
PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 6399757 B1 20020604
AI US 2000-689964 20001012 (9)
RLI Division of Ser. No. US 397277, now patented, Pat. No. US 6235886 Continuation-in-part of Ser. No. US 1992-943516, filed on 11 Sep 1992, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Fredman, Jeffrey
LREP Woodcock Washburn LLP
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 1759
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel amine compounds are provided by the present invention. Methods of

preparing and using said novel amine compounds are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 37 OF 58 USPATFULL on STN
AN 2002:130082 USPATFULL
TI Sugar **modified oligonucleotides**
IN Cook, Phillip Dan, San Marcos, CA, United States
PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 6399754 B1 20020604
AI US 1998-135202 19980817 (9)
RLI Division of Ser. No. US 1995-471973, filed on 6 Jun 1995, now patented, Pat. No. US 5872232 Continuation-in-part of Ser. No. US 1995-465880, filed on 6 Jun 1995, now patented, Pat. No. US 5955589 Division of Ser. No. US 244993, now patented, Pat. No. US 5623065 Continuation-in-part of Ser. No. US 1991-814961, filed on 24 Dec 1991, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Wang, Andrew
LREP Woodcock Washburn LLP
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN 9 Drawing Figure(s); 9 Drawing Page(s)
LN.CNT 3678
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods are provided for the treatment and diagnosis of diseases amenable to modulation of the production of selected proteins. In accordance with preferred embodiments, oligonucleotides and oligonucleotide analogs are provided which are specifically hybridizable with a selected sequence of RNA or DNA wherein at least one of the 2'-deoxyfuranosyl moieties of the nucleoside unit is modified. Treatment of diseases caused by various viruses and other causative agents is provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 38 OF 58 USPATFULL on STN
AN 2002:57767 USPATFULL
TI Compositions and methods for modulating RNA
IN Cook, Phillip Dan, Carlsbad, CA, United States
Bruice, Thomas, Carlsbad, CA, United States
Guinosso, Charles John, Vista, CA, United States
Kawasaki, Andrew Mamoru, Oceanside, CA, United States
Griffey, Richard, San Marcos, CA, United States
PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 6358931 B1 20020319
WO 9317717 19930916
AI US 1994-295744 19940830 (8)
WO 1993-US2057 19930305
19940830 PCT 371 date
RLI Continuation-in-part of Ser. No. US 1992-942961, filed on 10 Sep 1992 Continuation-in-part of Ser. No. US 1992-846556, filed on 5 Mar 1992, now patented, Pat. No. US 5359051 Continuation-in-part of Ser. No. WO 1991-US243, filed on 11 Jan 1991 Continuation-in-part of Ser. No. US 1990-463358, filed on 11 Jan 1990, now abandoned Continuation-in-part of Ser. No. US 1990-566977, filed on 13 Aug 1990, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Fredman, Jeffrey
LREP Woodcock Washburn LLP
CLMN Number of Claims: 50
ECL Exemplary Claim: 1
DRWN 23 Drawing Figure(s); 23 Drawing Page(s)
LN.CNT 2691
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for modulating the activity of RNA are

disclosed, In accordance with preferred embodiments, antisense compositions are prepared targeting reactive portions. The reactive portions preferably comprise one or two imidazole functionalities conjugated to the targeting oligonucleotide via linkers with or without intervening intercalating moieties. Therapeutics, diagnostics and research methods also are disclosed, as are synthetic nucleosides and nucleoside fragments that can be elaborated into oligonucleotides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 39 OF 58 USPATFULL on STN
AN 2001:185471 USPATFULL
TI Sugar **modified oligonucleotides** that detect and modulate gene expression
IN Cook, Philip Dan, Vista, CA, United States
Kawasaki, Andrew M., Oceanside, CA, United States
PA Isis Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 6307040 B1 20011023
AI US 1997-936166 19970923 (8)
RLI Division of Ser. No. US 1992-835932, filed on 5 Mar 1992, now patented, Pat. No. US 5670633 Continuation-in-part of Ser. No. US 566977, now abandoned Continuation of Ser. No. US 936166 Continuation of Ser. No. US 1995-468037, filed on 6 Jun 1995
DT Utility
FS GRANTED
EXNAM Primary Examiner: Guzo, David; Assistant Examiner: Wang, Andrew
LREP Woodcock Washburn Kurtz Mackiewicz & Norris LLP
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1995
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods are provided for the treatment and diagnosis of diseases amenable to modulation of the production of selected proteins. In accordance with preferred embodiments, oligonucleotides and oligonucleotide analogs are provided which are specifically hybridizable with a selected sequence of RNA or DNA wherein at least one of the 2'-deoxyfuranosyl moieties of the nucleoside unit is modified. Treatment of HIV, herpes virus, papillomavirus and other infections is provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 40 OF 58 USPATFULL on STN
AN 2001:112505 USPATFULL
TI Compound for detecting and modulating RNA activity and gene expression
IN Cook, Phillip Dan, Carlsbad, CA, United States
Ecker, David J., Carlsbad, CA, United States
Guinosso, Charles John, Vista, CA, United States
Acevedo, Oscar Leobardo, San Diego, CA, United States
Kawasaki, Andrew, Oceanside, CA, United States
Ramasamy, Kandasamy, Laguna Hills, CA, United States
PA Isis Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 6262241 B1 20010717
AI US 1995-383666 19950203 (8)
RLI Continuation of Ser. No. US 1992-854634, filed on 1 Jul 1992, now abandoned Continuation-in-part of Ser. No. US 463358, now abandoned Continuation-in-part of Ser. No. US 1990-566977, filed on 13 Aug 1990, now abandoned
DT Utility
FS GRANTED
EXNAM Primary Examiner: Marschel, Ardin H.
LREP Woodcock Washburn Kurtz Mackiewicz & Norris LLP
CLMN Number of Claims: 29
ECL Exemplary Claim: 25
DRWN No Drawings
LN.CNT 5473

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compositions and methods for modulating the activity of RNA and DNA are disclosed. In accordance with preferred embodiments, antisense compositions are prepared comprising targeting and reactive portions. Reactive portions which act, alternatively, through phosphorodiester bond cleavage, through backbone sugar bond cleavage or through base modification are preferrably employed. Groups which improve the pharmacodynamic and pharmacokinetic properties of the oligonucleotides are also useful in accordance with certain embodiments of this invention. Delivery of the reactive or non-reactive functionalities into the minor groove formed by the hybridization of the composition with the target RNA is also preferrably accomplished. Therapeutics, diagnostics and research methods and also disclosed. Synthetic nucleosides and nucleoside fragments are also provided useful for elaboration of oligonucleotides and oligonucleotide analogs for such purposes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 41 OF 58 USPATFULL on STN
AN 2001:97611 USPATFULL
TI Epithelial protein and DNA thereof for use in early cancer detection
IN Mulshine, James L., Bethesda, MD, United States
Tockman, Melvin S., Baltimore, MD, United States
PA The United States of America as represented by the Department of Health and Human Services, Washington, DC, United States (U.S. government)
The Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)
PI US 6251586 B1 20010626
AI US 1996-725027 19961002 (8)
RLI Continuation-in-part of Ser. No. US 1995-538711, filed on 2 Oct 1995, now patented, Pat. No. US 5994062
DT Utility
FS GRANTED
EXNAM Primary Examiner: Myers, Carla J.
LREP McAndrews, Held & Malloy, Ltd., Pochopien, Esq., Donald J., Kelly, Mary L.
CLMN Number of Claims: 35
ECL Exemplary Claim: 1
DRWN 35 Drawing Figure(s); 22 Drawing Page(s)
LN.CNT 3742
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is a purified and isolated epithelial protein, peptide and variants thereof whose increased presence in an epithelial cell is indicative of precancer. One epithelial protein which is an early detection marked for lung cancer was purified from two human lung cancer cell lines, NCI-H720 and NCI-H157. Using a six-step procedure, the epithelial protein was purified using a Western blot detection system under both non-reducing and reducing conditions. Purification steps included anion exchange chromatography, preparative isoelectric focusing, polymer-based C.sub.18 HPLC and analytic C.sub.4 HPLC. After an approximately 25,000 fold purification the immunostaining protein was >90% pure as judged by coomassie blue staining after reducing SDS-PAGE. The primary epithelial protein share some sequence homology with the heterogeneous nuclear ribonucleoprotein (hnRNP) A2. A minor co-purifying epithelial protein shares some sequence homology with the splice variant hnRNP-B1. Molecular analysis of primary normal bronchial epithelial cell cultures demonstrated a low level the epithelial protein expression, consistent with immunohistochemical staining of clinical samples, and an increased level of expression in most lung cancer cells. The epithelial protein is a marker of epithelial transformation in lung, breast, bone, ovary, prostate, kidney, melanoma and myeloma and may be casual in the process of carcinogenesis. Methods are provided for monitoring the expression of the epithelial protein, peptides and variants using molecular and immunological techniques as a screen for precancer and cancer in mammals. A method of computerized diagnoses of cancer and precancer is provided which detects levels of hnRNP messenger RNA.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 42 OF 58 USPATFULL on STN
AN 2001:75538 USPATFULL
TI Methods of synthesis and use
IN Manoharan, Muthiah, Carlsbad, CA, United States
Cook, P. Dan, San Marcos, CA, United States
PA Isis Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 6235886 B1 20010522
WO 9406815 19940331
AI US 1995-397277 19950309 (8)
WO 1993-US8367 19930903
19950309 PCT 371 date
19950309 PCT 102(e) date
DT Utility
FS Granted
EXNAM Primary Examiner: Fredman, Jeffrey
LREP Woodcock Washburn Kurt Mackiewicz & Norris LLP
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 1824
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligonucleotide and nucleotide amine analogs and methods of preparing and using these compounds are provided by the present invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 43 OF 58 USPATFULL on STN
AN 2001:29748 USPATFULL
TI Aminooxy-**modified oligonucleotide** synthetic intermediates
IN Cook, Phillip Dan, Lake San Marcos, CA, United States
Manoharan, Muthiah, Carlsbad, CA, United States
Kawasaki, Andrew Mamoru, Oceanside, CA, United States
PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 6194598 B1 20010227
AI US 2000-477902 20000105 (9)
RLI Division of Ser. No. US 1998-16520, filed on 30 Jan 1998
PRAI US 1997-37143P 19970214 (60)
DT Utility
FS Granted
EXNAM Primary Examiner: Gitomer, Ralph; Assistant Examiner: Crane, L. E.
LREP Woodcock Washburn Kurtz Mackiewicz & Norris LLP
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN 29 Drawing Figure(s); 29 Drawing Page(s)
LN.CNT 3095
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleotide compositions containing aminooxy moieties are provided. In accordance with preferred embodiments, oligonucleotides and oligonucleotide analogs are provided which are specifically hybridizable with a selected sequence of RNA or DNA wherein at least one of the nucleoside moieties of the **oligonucleotide** is **modified** to include an aminooxy moiety.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 44 OF 58 USPATFULL on STN
AN 2001:4883 USPATFULL
TI Aminooxy-**modified oligonucleotides** and methods for making same
IN Manoharan, Muthiah, Carlsbad, CA, United States
Cook, Phillip Dan, Lake San Marcos, CA, United States
Prakash, Thazha P., Carlsbad, CA, United States
Kawasaki, Andrew M., Oceanside, CA, United States
PA ISIS Pharmaceuticals Inc., Carlsbad, CA, United States (U.S.

corporation)
PI US 6172209 B1 20010109
AI US 1998-130973 19980807 (9)
RLI Continuation-in-part of Ser. No. US 1998-16520, filed on 30 Jan 1998
PRAI US 1997-37143P 19970214 (60)
DT Patent
FS Granted
EXNAM Primary Examiner: Geist, Gary; Assistant Examiner: Crane, Larson
LREP Woodcock Washburn Kurtz Mackiewicz & Norris LLP
CLMN Number of Claims: 37
ECL Exemplary Claim: 1
DRWN 29 Drawing Figure(s); 29 Drawing Page(s)
LN.CNT 3602
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligonucleotides and other macromolecules are provided which have increased nuclease resistance, substituent groups (such as 2'-aminooxy groups) for increasing binding affinity to complementary strand, and subsequences of 2'-deoxy-erythro-pentofuranosyl nucleotides that activate RNase H. Such oligonucleotides and macromolecules are useful for diagnostics and other research purposes, for modulating the expression of a protein in organisms, and for the diagnosis, detection and treatment of other conditions susceptible to oligonucleotide therapeutics.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 45 OF 58 USPATFULL on STN
AN 2000:132005 USPATFULL
TI 2'-O-aminooxy-**modified oligonucleotides**
IN Cook, Phillip Dan, Escondido, CA, United States
Manoharan, Muthiah, Carlsbad, CA, United States
Kawasaki, Andrew Mamoru, Oceanside, CA, United States
PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 6127533 20001003
AI US 1998-16520 19980130 (9)
PRAI US 1997-37143P 19970214 (60)
DT Utility
FS Granted
EXNAM Primary Examiner: Crane, L. Eric
LREP Woodcock Washburn Kurtz Mackiewicz & Norris LLP
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 29 Drawing Figure(s); 29 Drawing Page(s)
LN.CNT 3559
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Nucleotide compositions containing aminooxy moieties are provided. In accordance with preferred embodiments, oligonucleotides and oligonucleotide analogs are provided which are specifically hybridizable with a selected sequence of RNA or DNA wherein at least one of the nucleoside moieties of the **oligonucleotide** is **modified** to include an aminooxy moiety.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 46 OF 58 USPATFULL on STN
AN 2000:109600 USPATFULL
TI Oligoribonucleotides and ribonucleases for cleaving RNA
IN Crooke, Stanley T., Carlsbad, CA, United States
PA Isis Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 6107094 20000822
AI US 1997-870608 19970606 (8)
RLI Continuation-in-part of Ser. No. US 1996-659440, filed on 6 Jun 1996, now patented, Pat. No. US 5898031
DT Utility
FS Granted
EXNAM Primary Examiner: Elliott, George C.; Assistant Examiner: McGarry, Sean

LREP Woodcock Washburn Kurtz Mackiewicz & Norris LLP
CLMN Number of Claims: 8
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 10 Drawing Page(s)
LN.CNT 3806
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligomeric compounds including oligoribonucleotides and oligoribonucleosides are provided that have subsequences of 2'-pentoribofuranosyl nucleosides that activate dsRNase. The oligoribonucleotides and oligoribonucleosides can include substituent groups for increasing binding affinity to complementary nucleic acid strand as well as substituent groups for increasing nuclease resistance. The oligomeric compounds are useful for diagnostics and other research purposes, for modulating the expression of a protein in organisms, and for the diagnosis, detection and treatment of other conditions susceptible to oligonucleotide therapeutics. Also included in the invention are mammalian ribonucleases, i.e., enzymes that degrade RNA, and substrates for such ribonucleases. Such a ribonuclease is referred to herein as a dsRNase, wherein "ds" indicates the RNase's specificity for certain double-stranded RNA substrates. The artificial substrates for the dsRNases described herein are useful in preparing affinity matrices for purifying mammalian ribonuclease as well as non-degradative RNA-binding proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 47 OF 58 USPATFULL on STN
AN 1999:167127 USPATFULL
TI 2'-**modified oligonucleotides**
IN Cook, Phillip Dan, Carlsbad, CA, United States
Kawasaki, Andrew Mamoru, Oceanside, CA, United States
PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 6005087 19991221
AI US 1998-35357 19980305 (9)
RLI Continuation of Ser. No. US 1995-468037, filed on 6 Jun 1995, now patented, Pat. No. US 5859221 And a continuation-in-part of Ser. No. US 835932
DT Utility
FS Granted
EXNAM Primary Examiner: Degen, Nancy; Assistant Examiner: Wang, Andrew
LREP Woodcock Washburn Kurtz Mackiewcz & Norris LLP
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN 9 Drawing Figure(s); 9 Drawing Page(s)
LN.CNT 3832
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods are provided for the treatment and diagnosis of diseases amenable to modulation of the production of selected proteins. In accordance with preferred embodiments, oligonucleotides and oligonucleotide analogs are provided which are specifically hybridizable with a selected sequence of RNA or DNA wherein at least one of the 2'-deoxyfuranosyl moieties of the nucleoside unit is modified. Treatment of diseases caused by various viruses and other causative agents is provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 48 OF 58 USPATFULL on STN
AN 1999:155446 USPATFULL
TI Epithelial protein and DNA thereof for use in early cancer detection
IN Mulshine, James L., Bethesda, MD, United States
Tockman, Melvyn S., Tampa, FL, United States
PA The United States of America as represented by the Department of Health and Human Services, Washington, DC, United States (U.S. government)
The Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)
PI US 5994062 19991130

AI US 1995-538711 19951002 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Myers, Carla J.
LREP McAndrews, Held & Malloy, Ltd.
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 31 Drawing Figure(s); 18 Drawing Page(s)
LN.CNT 2683
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention is a purified and isolated epithelial protein, peptide and variants thereof whose increased presence in an epithelial cell is at indicative of precancer. One epithelial protein which is an early detection marked for lung cancer was purified from two human lung cancer cell lines, NCI-H720 and NCI-H157. Using a six-step procedure, the epithelial protein was purified using a Western blot detection system under both non-reducing and reducing conditions. Purification steps included anion exchange chromatography, preparative isoelectric focusing, polymer-based C.sub.18 HPLC and analytic C.sub.4 HPLC. After an approximately 25,000 fold purification the immunostaining protein was >90% pure as judged by coomassie blue staining after reducing SDS-PAGE. The primary epithelial protein share some sequence homology with the heterogeneous nuclear ribonucleoprotein (hnRNP) A2. A minor co-purifying epithelial protein shares some sequence homology with the splice variant hnRNP-B1. Molecular analysis of primary normal bronchial epithelial cell cultures demonstrated a low level the epithelial protein expression, consistent with immunohistochemical staining of clinical samples, and an increased level of expression in most lung cancer cells. The epithelial protein is a marker of epithelial transformation in lung, breast, bone, ovary, prostate, kidney, melanoma and myeloma and may be casual in the process of carcinogenesis. Methods are provided for monitoring the expression of the epithelial protein, peptides and variants using molecular and immunological techniques as a screen for precancer and cancer in mammals.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 49 OF 58 USPATFULL on STN
AN 1999:125057 USPATFULL
TI Backbone **modified oligonucleotide** analogues
IN Cook, Phillip Dan, Carlsbad, CA, United States
Sanghvi, Yogesh Shantilal, San Marcos, CA, United States
Vasseur, Jean Jacques, Carlsbad, CA, United States
Debart, Francoise, Carlsbad, CA, United States
PA Isis Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 5965721 19991012
AI US 1996-763354 19961211 (8)
RLI Division of Ser. No. US 1994-150079, filed on 7 Apr 1994, now patented, Pat. No. US 5610289 which is a continuation-in-part of Ser. No. US 1991-703619, filed on 21 May 1991, now patented, Pat. No. US 5378825, issued on 13 Jan 1995 which is a continuation-in-part of Ser. No. US 1990-566836, filed on 13 Aug 1990, now patented, Pat. No. US 5223618 And Ser. No. US 1990-558663, filed on 27 Jul 1990, now patented, Pat. No. US 5138045, issued on 11 Aug 1992
DT Utility
FS Granted
EXNAM Primary Examiner: Marschel, Ardin H.
LREP Woodcock Washburn Kurtz Mackiewicz & Norris, LLP
CLMN Number of Claims: 11
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 3094
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Therapeutic oligonucleotide analogues which have improved nuclease resistance and improved cellular uptake are provided. Replacement of the normal phosphorodiester inter-sugar linkages found in natural oligomers with four atom linking groups forms unique di- and poly-nucleosides and

nucleotides useful in regulating RNA expression and in therapeutics. Methods of synthesis and use are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 50 OF 58 USPATFULL on STN
AN 1999:113874 USPATFULL
TI Gapped 2' **modified oligonucleotides**
IN Cook, Phillip Dan, Vista, CA, United States
Monia, Brett P., Carlsbad, CA, United States
PA Isis Pharmaceuticals Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 5955589 19990921
AI US 1995-465880 19950606 (8)
RLI Continuation-in-part of Ser. No. US 244993
DT Utility
FS Granted
EXNAM Primary Examiner: Low, Christopher S. F.
LREP Woodcock Washburn Kurtz Mackiewicz & Norris LLP
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 9 Drawing Figure(s); 9 Drawing Page(s)
LN.CNT 2263
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligonucleotides and other macromolecules are provided which have increased nuclease resistance, substituent groups for increasing binding affinity to complementary strand, and subsequences of 2'-deoxy-erythro-pentofuranosyl nucleotides that activate RNase H. Such oligonucleotides and macromolecules are useful for diagnostics and other research purposes, for modulating the expression of a protein in organisms, and for the diagnosis, detection and treatment of other conditions susceptible to oligonucleotide therapeutics.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 51 OF 58 USPATFULL on STN
AN 1999:50839 USPATFULL
TI Oligoribonucleotides for cleaving RNA
IN Crooke, Stanley T., Carlsbad, CA, United States
PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 5898031 19990427
AI US 1996-659440 19960606 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: LeGuyader, John L.
LREP Woodcock Washburn Kurtz Mackiewicz & Norris LLP
CLMN Number of Claims: 66
ECL Exemplary Claim: 1
DRWN 12 Drawing Figure(s); 5 Drawing Page(s)
LN.CNT 3150
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligomeric compounds including oligoribonucleotides and oligoribonucleosides are provided that have subsequences of 2-pentoribofuranosyl nucleosides that activate dsRNase. The oligoribonucleotides and oligoribonucleosides can include substituent groups for increasing binding affinity to complementary nucleic acid strand as well as substituent groups for increasing nuclease resistance. The oligomeric compounds are useful for diagnostics and other research purposes, for modulating the expression of a protein in organisms, and for the diagnosis, detection and treatment of other conditions susceptible to oligonucleotide therapeutics.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 52 OF 58 USPATFULL on STN
AN 1999:4872 USPATFULL
TI 2'-**modified oligonucleotides**

IN Cook, Phillip Dan, San Marcos, CA, United States
Kawasaki, Andrew Mamoru, Oceanside, CA, United States
PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 5859221 19990112
AI US 1995-468037 19950606 (8)
RLI Continuation-in-part of Ser. No. US 1992-854634, filed on 1 Jul 1992, now abandoned And a continuation-in-part of Ser. No. US 1992-835932, filed on 5 Mar 1992, now patented, Pat. No. US 5670633 which is a continuation-in-part of Ser. No. US 1990-566977, filed on 13 Aug 1990, now abandoned , said Ser. No. US 854634 which is a continuation-in-part of Ser. No. US 1990-463358, filed on 11 Jan 1990, now abandoned And Ser. No. US 1990-566977, filed on 13 Aug 1990, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: LeGuyader, John L.; Assistant Examiner: Wang, Andrew
LREP Woodcock Washburn Kurtz Mackiewicz & Norris LLP
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN 9 Drawing Figure(s); 9 Drawing Page(s)
LN.CNT 3826
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods are provided for the treatment and diagnosis of diseases amenable to modulation of the production of selected proteins. In accordance with preferred embodiments, oligonucleotides and oligonucleotide analogs are provided which are specifically hybridizable with a selected sequence of RNA or DNA wherein at least one of the 2'-deoxyfuranosyl moieties of the nucleoside unit is modified. Treatment of diseases caused by various viruses and other causative agents is provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 53 OF 58 USPATFULL on STN
AN 1998:139037 USPATFULL
TI Amines and methods of making and using the same
IN Manoharan, Muthiah, Carlsbad, CA, United States
Cook, P. Dan, Carlsbad, CA, United States
PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 5834607 19981110
AI US 1994-361858 19941222 (8)
RLI Continuation of Ser. No. US 1992-943516, filed on 11 Sep 1992, now abandoned which is a continuation-in-part of Ser. No. US 1990-558663, filed on 27 Jul 1990, now patented, Pat. No. US 5138045 And a continuation-in-part of Ser. No. US 1992-844845, filed on 3 Mar 1992, now patented, Pat. No. US 5218105
DT Utility
FS Granted
EXNAM Primary Examiner: Elliott, George C.; Assistant Examiner: Marschel, Ardin H.
LREP Woodcock Washburn Kurtz Mackiewicz & Norris LLP
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 1649
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Novel amine compounds are provided by the present invention. Methods of preparing and using said novel amine compounds are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 54 OF 58 USPATFULL on STN
AN 97:86739 USPATFULL
TI Sugar **modified oligonucleotides** that detect and modulate gene expression
IN Cook, Phillip Dan, Carlsbad, CA, United States
Kawasaki, Andrew Mamoro, Oceanside, CA, United States

PA ISIS Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 5670633 . 19970923
WO 9203568 19920305
AI US 1992-835932 19920305 (7)
WO 1991-US5720 19910812
19920305 PCT 371 date
19920305 PCT 102(e) date
RLI Continuation-in-part of Ser. No. US 1990-566977, filed on 13 Aug 1990, now abandoned And Ser. No. US 1990-463358, filed on 11 Jan 1990, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Stanton, Brian
LREP Woodcock Washburn Kurtz Mackiewicz & Norris
CLMN Number of Claims: 3
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1990
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods are provided for the treatment and diagnosis of diseases amenable to modulation of the production of selected proteins. In accordance with preferred embodiments, oligonucleotides and oligonucleotide analogs are provided which are specifically hybridizable with a selected sequence of RNA or DNA wherein at least two of the 2'-deoxyfuranosyl moieties of the nucleoside unit is modified. Treatment of HIV, herpes virus, papillomavirus and other infections is provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 55 OF 58 USPATFULL on STN
AN 97:25129 USPATFULL
TI Nuclease resistant, pyrimidine **modified oligonucleotides** that detect and modulate gene expression
IN Cook, Philip D., Carlsbad, CA, United States
Sanghvi, Yogesh S., San Marcos, CA, United States
PA Isis Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 5614617 19970325
WO 9202258 19920220
AI US 1993-971978 19930218 (7)
WO 1991-US4681 19910701
19930218 PCT 371 date
19930218 PCT 102(e) date
DT Utility
FS Granted
EXNAM Primary Examiner: Rories, Charles
LREP Woodcock Washburn Kurtz Mackiewicz & Norris
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1816
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligonucleotide analogs are provided having improved nuclease resistance. Modifications of selected nucleotides through substitutions on the pyrimidine ring are disclosed. Certain preferred embodiments comprise the inclusion of said modified nucleotides at a plurality of sites, especially at the 3' end of a selected oligonucleotide analog.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 56 OF 58 USPATFULL on STN
AN 97:20656 USPATFULL
TI Backbone **modified oligonucleotide** analogues
IN Cook, Phillip D., Carlsbad, CA, United States
Sanghvi, Yogesh S., San Marcos, CA, United States
Vasseur, Jean J., San Marcos, CA, United States
Debart, Francoise, Montpellier, France

PA Isis Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 5610289 19970311
AI US 1994-150079 19940407 (8)
WO 1992-US4294 19920521
19940407 PCT 371 date
19940407 PCT 102(e) date
RLI Continuation-in-part of Ser. No. US 1991-703619, filed on 21 May 1991, now patented, Pat. No. US 5378825, issued on 3 Jan 1995 which is a continuation-in-part of Ser. No. US 1990-566836, filed on 13 Aug 1990, now patented, Pat. No. US 5223618, issued on 29 Jan 1993 And a continuation-in-part of Ser. No. US 1990-558663, filed on 27 Jul 1990, now patented, Pat. No. US 5138045, issued on 11 Aug 1992
DT Utility
FS Granted
EXNAM Primary Examiner: Low, Christopher S. F.
LREP Woodcock Washburn Kurtz Mackiewicz & Norris
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 3043
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Therapeutic oligonucleotide analogues which have improved nuclease resistance and improved cellular uptake are provided. Replacement of the normal phosphorodiester inter-sugar linkages found in natural oligomers with four atom linking groups forms unique di- and poly- nucleosides and nucleotides useful in regulating RNA expression and in therapeutics. Methods of synthesis and use are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 57 OF 58 USPATFULL on STN
AN 97:12576 USPATFULL
TI Backbone **modified oligonucleotide** analogs
IN De Mesmaeker, Alain, Kaenerkinden, Switzerland
Lebreton, Jacques, Marseilles, France
Waldner, Adrian, Allschwil, Switzerland
Cook, Phillip D., Carlsbad, CA, United States
PA Ciba Geigy AG., Basel, Switzerland (non-U.S. corporation)
Isis Pharmaceuticals, Inc., Carlsbad, CA, United States (U.S. corporation)
PI US 5602240 19970211
WO 9220823 19921126
AI US 1994-140206 19940425 (8)
WO 1992-US4305 19920521
19940425 PCT 371 date
19940425 PCT 102(e) date
RLI Continuation-in-part of Ser. No. US 1991-703619, filed on 21 May 1991, now patented, Pat. No. US 5378825 which is a continuation-in-part of Ser. No. US 1990-566836, filed on 13 Aug 1990, now patented, Pat. No. US 5223618 And a continuation-in-part of Ser. No. US 1990-558663, filed on 27 Jul 1990, now patented, Pat. No. US 5138045
DT Utility
FS Granted
EXNAM Primary Examiner: Wilson, James O.
LREP Woodcock Washburn Kurtz Mackiewicz & Norris
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 2984
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Oligonucleotide analogs are provided wherein phosphodiester inter-sugar linkages are replaced with four atom linking groups. Such linking groups include NR--C(O)--CH.sub.2 --CH.sub.2, NR--C(S)--CH.sub.2 --CH.sub.2, CH.sub.2 --NR--C(O)--CH.sub.2, CH.sub.2 --NR--C(S)--CH.sub.2, CH.sub.2 --CH.sub.2 --NR--C(O)--R--CH.sub.2, and CH.sub.2 --C(S)--NR--CH.sub.2. Methods for preparing and using these oligonucleotide analogs are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 58 OF 58 USPATFULL on STN
AN 94:93430 USPATFULL
TI Compounds useful in the synthesis of nucleic acids capable of cleaning RNA
IN Cook, Phillip D., Carlsbad, CA, United States
Guinosso, Charles J., Carlsbad, CA, United States
Bruice, Thomas, Carlsbad, CA, United States
PA ISIS Pharmaceuticals, Carlsbad, CA, United States (U.S. corporation)
PI US 5359051 19941025
AI US 1992-846556 19920305 (7)
RLI which is a continuation-in-part of Ser. No. US 1990-463358, filed on 11 Jan 1990, now abandoned And a continuation-in-part of Ser. No. US 1990-566977, filed on 13 Aug 1990, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Brown, Johnnie R.; Assistant Examiner: Crane, L. Eric
LREP Woodcock Washburn Kurtz Mackiewicz & Norris
CLMN Number of Claims: 2
ECL Exemplary Claim: 1,2
DRWN No Drawings
LN.CNT 1046
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Compositions and methods for modulating the activity of RNA are disclosed. In accordance with preferred embodiments, antisense compositions are prepared comprising targeting and reactive portions. In preferred embodiments, the reactive portions comprise one or two imidazole functionalities conjugated to the targeting oligonucleotide via linkers with and without intervening intercalating moieties and act through phosphorodiester hydrolytic bond cleavage. Therapeutics, diagnostics and research methods are also disclosed. Synthetic nucleosides and nucleoside fragments are also provided which are useful for elaboration of oligonucleotides for such purposes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.